

MAIL TO:

STATE OF UTAH
 DIVISION OF PURCHASING
 3150 STATE OFFICE BUILDING, CAPITOL HILL
 P.O. BOX 141061
 SALT LAKE CITY, UTAH 84114-1061
 TELEPHONE (801) 538-3026
<http://purchasing.utah.gov>

Invitation to BidSolicitation Number: **PM5106**Due Date: **05/11/05 at 2:00 PM**

Date Sent: April 28, 2005

 Goods and services to be purchased: **MINE RECLAMATION PROJECT- VERNON SHEEPROCKS**
Must Complete

Company Name		Federal Tax Identification Number	
Ordering Address	City	State	Zip Code
Remittance Address (if different from ordering address)	City	State	Zip Code
Type <input type="checkbox"/> Corporation <input type="checkbox"/> Partnership <input type="checkbox"/> Proprietorship <input type="checkbox"/> Government	Company Contact Person		
Telephone Number (include area code)	Fax Number (include area code)		
Company's Internet Web Address	Email Address		
Discount Terms (for bid purposes, bid discounts less than 30 days will not be considered)	Days Required for Delivery After Receipt of Order (see attached for any required minimums)		
<p>The following documents are included in this solicitation: Solicitation forms, instructions and general provisions, Terms and Conditions, and specifications. <u>Please review all documents carefully before completing.</u></p> <p>The undersigned certifies that the goods or services offered are produced, mined, grown, manufactured, or performed in Utah. Yes_____ No_____. If no, enter where produced, etc._____</p>			
Contractor License Number	Contractor License Expiration Date	Contractor Class Title	Contractor Class Number
CONTRACTOR MUST BE A LICENSED CONTRACTOR IN THE STATE OF UTAH TO BID FOR THIS PROJECT. SEE WWW.PURCHASING .UTAH.GOV CURRENT BIDS CONTRACTOR CLASSIFICATION FOR CURRENT CLASSIFICATION CODES.			
Offeror's Authorized Representative's Signature		Date	
Type or Print Name		Position or Title	

STATE OF UTAH
DIVISION OF PURCHASING

Invitation to Bid

Solicitation Number: PM5106

Due Date: 05/11/05

Vendor Name:

Item#	Qty	Unit	Description	Unit Price
001	1	Job	RECLAMATION CONSTRUCTION FOR THE DIVISION OF OIL, GAS & MINING (DOGM) PROJECT NAME: VERNON SHEEPROCKS. THE WORK CONSISTS OF 70 MINE PORTAL CLOSURES (MANUAL AND MECHANIZED EARTHWORK, STEEL FABRICATION, MASONARY, REVEGETATION) AND EARTHWORK IN TOOELE COUNTY. DETAILS OF THE WORK ARE CONTAINED IN THE SPECIFICATION TITLES: CONTRACT SPECIFICATION: VERNON SHEEPROCKS PROJECT. SPECS AVAILABLE 04/27/05 FROM DOGM FOR A \$20.00 FEE..	\$

THIS IS A FORMAL BID, THEREFORE NO FAXED RESPONSES WILL BE ACCEPTED

REQUIREMENTS:

Optional pre-bid site meeting will be held on Tuesday, May 03, 2002 at 2:00 noon, meet at the Vernon Reservoir. Please see attached specifications for complete information.

BONDS:

A 5% bid bond will be required at the time of bid submission and a 100% performance/payment bond will be required of the successful bidder. **A completed bond statement must be submitted with each bid.**

CHANGES OR MODIFICATIONS TO PROCUREMENT:

Any modification to this procurement effort shall be made in writing by addendum issued by the state division of purchasing. Only authorized and properly issued addenda shall constitute the official position of the state and shall be binding. Anyone submitting a response to this solicitation, with basis in or on other communication or information received from sources other than through official addendum, assumes full risk including the possibility of a determination of non-responsiveness and may be rejected at the sole discretion of the state.

QUESTIONS:

Questions on project details contact: Chris Rohrer (801) 538-5322.

For bid processing questions, please contact Paul Mash at 801-538-3138

Reference: RX 560 52000000005

Commodity Code: 96273

INVITATION TO BID - INSTRUCTION AND GENERAL PROVISIONS

1. BID PREPARATION: (a) All prices and notations must be in ink or typewritten. (b) Price each item separately. Unit price shall be shown and a total price shall be entered for each item bid. Errors may be crossed out and corrections printed in ink or typewritten adjacent and must be initialed in ink by person signing quotation. (c) Unit price will govern, if there is an error in the extension. (d) Delivery time is critical and must be adhered to as specified. (e) Wherever in this document an item is defined by using a trade name of a manufacturer and/or model number, it is intended that the words, "or equivalent" apply. "Or equivalent" means any other brand that is equal in use, quality, economy and performance to the brand listed as determined by the Division of Purchasing & General Services (DIVISION). If the vendor lists a trade name and/or catalog number in the bid, the DIVISION will assume the item meets the specifications unless the bid clearly states it is an alternate, and describes specifically how it differs from the item specified. All bids must include complete manufacturer's descriptive literature if quoting an equivalent product. All products are to be of new, unused condition, unless otherwise requested in this solicitation. (f) By signing the bid the vendor certifies that all of the information provided is accurate, that they are willing and able to furnish the item(s) specified, and that prices quoted are correct. (g) This bid may not be withdrawn for a period of 60 days from bid due date.

2. SUBMITTING THE BID: (a) The bid must be signed in ink, sealed in a properly addressed envelope, and delivered to the DIVISION OF PURCHASING (DIVISION), 3150 State Office Building, Capitol Hill, Salt Lake City, UT 84114-1061 by the "Due Date and Time." **The "Bid Number" and "Due Date" must appear on the outside of the envelope.** (b) Bids, modifications, or corrections received after the closing time on the "Due Date" will be considered late and handled in accordance with the Utah Procurement Rules, section R33-3-109. (c) **Your bid will be considered only if it is submitted on the forms provided by the state. Facsimile transmission of bids to DIVISION will not be considered.** (d) All prices quoted must be both F.O.B. Origin per paragraph 1.(c) and F.O.B. Destination. Additional charges including but not limited to delivery, drayage, express, parcel post, packing, cartage, insurance, license fees, permits, costs of bonds, or for any other purpose must be included in the bid for consideration and approval by the DIVISION. Upon award of the contract, the shipping terms will be F.O.B. Destination with all transportation and handling charges paid by the Contractor, unless otherwise specified by the DIVISION.

3. SOLICITATION AMENDMENTS: All changes to this solicitation will be made through written addendum only. Bidders are cautioned not to consider verbal modifications.

4. PROPRIETARY INFORMATION: Suppliers are required to mark any specific information contained in their bid which is not to be disclosed to the public or used for purposes other than the evaluation of the bid. Each request for nondisclosure must be accompanied by a specific justification explaining why the information is to be protected. Pricing and service elements of any bid will not to be considered proprietary. Bids submitted may to be reviewed and evaluated by any persons at the discretion of the state.

5. SAMPLES: Samples of item(s) specified in this bid, when required by DIVISION, must to be furnished free of charge to DIVISION. Any item not destroyed by tests may, upon request made at the time the sample is furnished, to be returned at the bidder's expense.

6. WARRANTY: The contractor agrees to warrant and assume responsibility for all products (including hardware, firmware, and/or software products) that it licenses, contracts, or sells to the State of Utah under this contract for a period of one year, unless otherwise specified and mutually agreed upon elsewhere in this contract. The contractor (seller) acknowledges that all warranties granted to the buyer by the Uniform Commercial Code of the State of Utah applies to this contract. Product liability disclaimers and/or warranty disclaimers from the seller are not applicable to this contract unless otherwise specified and mutually agreed upon elsewhere in this contract. In general, the contractor warrants that: (1) the product will do what the salesperson said it would do, (2) the product will live up to all specific claims that the manufacturer makes in their advertisements, (3) the product will be suitable for the ordinary purposes for which such product is used, (4) the product will be suitable for any special purposes that the State has relied on the contractor's skill or judgement to consider when it advised the State about the product, (5) the product has been properly designed and manufactured, and (6) the product is free of significant defects or unusual problems about which the State has not been warned. Remedies available to the State include the following: The contractor will repair or replace (at no charge to the State) the product whose nonconformance is discovered and made known to the contractor in writing. If the repaired and/or replaced product proves to be inadequate, or fails of its essential purpose, the contractor will refund the full amount of any payments that have been made. Nothing in this warranty will be construed to limit any rights or remedies the State of Utah may otherwise have under this contract.

7. DIVISION APPROVAL: Purchase orders placed, or contracts written, with the state of Utah, as a result of this bid, will not to be legally binding without the written approval of the director of the DIVISION.

8. AWARD OF CONTRACT: (a) the contract will to be awarded with reasonable promptness, by written notice, to the lowest responsible bidder that meets the specifications. Consideration will to be given to the quality of the product(s) to be supplied, conformity to the specifications, the purpose for which required, delivery time required, discount terms and other criteria set forth in this invitation to bid. (b) The bids are opened publicly in the presence of one or more witnesses. the name of each bidder, and the amount of the bid is recorded. Each bid, and the record, is open to public inspection. (c) The DIVISION may accept any item or group of items, or overall low bid. the DIVISION has the right to cancel this invitation to bid at any time prior to the award of contract. (d) The DIVISION can reject any and all bids. And it can waive any informality, or technicality in any bid received, if the DIVISION believes it would serve the best interest of the State. (e) Before, or after, the award of a contract the DIVISION has the right to inspect the bidder's premises and all business records to determine the holder's ability to meet contract requirements. (f) DIVISION does not guarantee to make any purchase under awarded contract(s). Estimated quantities are for bidding purposes only, and not to be interpreted as a guarantee to purchase any amount. (g) Utah has a reciprocal preference law which will to be applied against bidders bidding products or services produced in states which discriminate against Utah products. For details see Section 63-56 20.5 -20.6, Utah Code Annotated.

9. ANTI-DISCRIMINATION ACT: The bidder agrees to abide by the provisions of the Utah Anti-discrimination Act, Title 34 Chapter 35, U.C.A. 1953, as amended, and Title VI and Title VII of the Civil Rights Act of 1964 (42 USC 2000e), which prohibit discrimination against any employee or applicant for employment, or any applicant or recipient of services, on the basis of race, religion, color, or national origin; and further agrees to abide by Executive Order No. 11246, as amended, which prohibits discrimination on the basis of sex; 45 CFR 90 which prohibits discrimination on the basis of age, and Section 504 of the Rehabilitation Act of 1973 or the Americans with Disabilities Act of 1990, which prohibits discrimination on the basis of disabilities. Also bidder agrees to abide by Utah's Executive Order, dated March 17, 1993, which prohibits sexual harassment in the workplace. Vendor must include this provision in every subcontract or purchase order relating to purchases by the State of Utah to insure that the subcontractors and vendors are bound by this provision.

10. DEBARMENT: The CONTRACTOR certifies that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction (contract) by any governmental department or agency. If the CONTRACTOR cannot certify this statement, attach a written explanation for review by the STATE.

11. ENERGY CONSERVATION AND RECYCLED PRODUCTS: The contractor is encouraged to offer Energy Star certified products or products that meet FEMP (Federal Energy Management Program) standards for energy consumption. The State of Utah also encourages contractors to offer products that are produced with recycled materials, where appropriate, unless otherwise requested in this solicitation.

12. GOVERNING LAWS AND REGULATIONS: All state purchases are subject to the Utah Procurement Code, Title 63 Chapter 56 U.C.A. 1953, as amended, and the Procurement Regulations as adopted by the Utah State Procurement Policy Board. These are available on the Internet at www.purchasing.utah.gov.

(Revision 1 Mar 2005 - ITB Instructions)

Vernon Sheeprocks Project

CONSTRUCTION SPECIFICATIONS

AMR/045/910

Spring 2005

Requisition Number RX 560 52000000005

Tooele County, Utah



UTAH NATURAL RESOURCES
Abandoned Mine Reclamation Program
Salt Lake City, Utah



Utah Oil Gas and Mining

Copy of 30

***** This is NOT a standard DFCM Specification Package *****

**STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS & MINING
ABANDONED MINE RECLAMATION PROGRAM**

The Utah Department of Natural Resources receives federal aid and prohibits discrimination on the basis of race, color, sex, age, national origin, or handicap. For information or complaints regarding discrimination, contact Executive Director, Utah Department of Natural Resources, P.O. Box 145610, Salt Lake City, Utah 84114-5610 or Office of Equal Opportunity, U.S. Department of the Interior, Washington, D.C. 20240

Completed Date: April 21, 2005

MS Word version:

VS_Specs.doc (text only, without design drawings and maps):

Adobe Acrobat versions:

VS_Specs_text.pdf (text only, without design drawings and maps)

VS_Specs_AppxEdwgs.pdf (Appendix E design drawings)

VS_Specs_AppxFmaps.pdf (Appendix F maps)

VS_Specs_complete.pdf (complete specs, with design drawings and maps)

Location: O:\Projects\045Tooele\910Sheeprock\045910VernonSR\Construction\Specs

Master Specs Template Version : 06/07/04 (Last Revised 12/3/04)

CONSTRUCTION SPECIFICATIONS
FOR
VERNON SHEEPROCKS PROJECT
RECLAMATION CONSTRUCTION
Tooele County, Utah

Requisition Number RX 560 52000000005

State of Utah

Department of Natural Resources
Division of Oil, Gas and Mining
Abandoned Mine Reclamation Program
1594 West North Temple, Suite 1210
P.O. Box 145801
Salt Lake City, Utah 84114-5801
(801) 538-5340
<http://www.ogm.utah.gov/amr/contract.htm>

***** This is NOT a standard DFCM Specification Package *****

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Project Summary And Bidding Check List

Sealed bids will be received by the Division of Purchasing, 3150 State Office Building, Salt Lake City, for the VERNON SHEEPROCKS RECLAMATION CONSTRUCTION in Tooele County, Utah. Bids will be received until 2:00 p.m., on Wednesday, May 11, 2005, at which time they will be opened and read aloud in the Division of Purchasing offices.

The WORK consists of reclamation construction at abandoned hardrock metal mines located in Tooele County, Utah. The work includes installing mine closures and limited earthwork to bury or regrade mine dumps. The work includes incidental tasks such as access improvement and revegetation of disturbed areas. Details of the WORK are contained in the Specifications.

Specifications may be obtained from the Division of Oil, Gas, and Mining, 1594 West North Temple, Suite 1210, Salt Lake City, for a nonrefundable fee of twenty dollars (\$20.00). Checks should be made payable to the Division of Oil, Gas and Mining.

AN OPTIONAL PRE-BID MEETING WILL BE HELD FOR ALL BIDDERS ON TUESDAY, MAY 3, 2005

AT 12:00 NOON. Meet at the Vernon Reservoir, about 8 miles south of Vernon. The meeting is expected to last most of the afternoon and will involve driving and hiking over rugged terrain. High clearance four-wheel-drive vehicles are recommended. This meeting is optional. *Because of the special nature of abandoned mine closure work, bidders are strongly encouraged to attend the pre-bid meeting*

Questions about bidding procedures should be directed to the Division of Purchasing. Contact person is Paul Mash, Purchasing Agent. Bids should be delivered to:

Division of Purchasing
3150 State Office Building
Salt Lake City, Utah 84114
(801) 538-3026 Fax: (801) 538-3882

Technical questions about the project should be directed to the project manager at the Division of Oil, Gas and Mining. Contact person is:

Chris Rohrer, Project Manager
Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801
(801) 538-5322 Fax: (801) 359-3940
E-mail: chrisrohrer@utah.gov

The following is a check list of items that **must** be provided with the bid documents:

- ☐ Division of Purchasing bid documents
- ☐ Proposal
- ☐ Agency Contract Bond Statement
- ☐ Bid Security (Bid Bond or Cashier's Check)
- ☐ Minority and Woman Business Enterprise Representation
- ☐ Bid Schedule
- ☐ Photocopy of current Utah Contractor's License

Required Submittals:

- ☐ Section 0230, Part 1, 1.02
- ☐ Section 0240, Part 1, 1.02, A
- ☐ Section 0250, Part 1, 1.02, A-B
- ☐ Section 0251, Part 1, 1.02, A.1
- ☐ Section 0270, Part 1, 1.02, A-B
- ☐ Section 0290, Part 1, 1.02, A-B

The following items are required within 24 hours after bid opening from the apparent two low bidders only. They may be submitted with the bid at the bidder's option or convenience.

- ☐ Bidder's Proposed Subcontractors, Suppliers & Vendors List
- ☐ AVS Eligibility Check information: AML Contractor Ownership & Control Information Package

Bids must be delivered to the Division of Purchasing only. Do NOT deliver bids to DOGM.

Instructions To Bidders

1. Request for Bids

The Utah Division of Purchasing is accepting bids for the Vernon Sheeprocks Project. The WORK consists of 73 mine closures, site grading and earthwork at 10 sites, runoff control, and revegetation of disturbed areas at abandoned hardrock metal mines in Tooele County, Utah. Details of the WORK are contained in these Specifications. **Sealed bids are due on Wednesday, May 11, no later than 2:00 P.M., at which time they will be opened and read aloud at the Division of Purchasing's office.**

2. Qualifications of Bidders

All CONTRACTORS must be currently licensed in Utah for the type of work to be done. Bidders shall submit a photocopy of their current Utah license covering the type of work to be done with their bid.

All CONTRACTORS who have previously performed WORK on a Utah Abandoned Mine Reclamation Program (UAMRP) project have been evaluated based on the Contractor Performance Rating Form (Appendix D). A rating of ten points or more is required to bid on this project.

3. Drawings and Specifications

Drawings and Specifications may be obtained from the Division of Oil, Gas and Mining for the amount stated in the Project Summary and Checklist. Checks should be made payable to the Utah Division of Oil, Gas and Mining. The payment is nonrefundable.

4. Pre-bid Meeting

An optional pre-bid site meeting will be held for all interested bidders on Tuesday, May 3, at 12:00 noon.

Meet at the Vernon Reservoir, about 8 miles south of Vernon (see Map S4 in Appendix F). The meeting is expected to last most of the day and will involve driving and hiking over rugged terrain. High-clearance four-wheel-drive vehicles are recommended.

This meeting is optional. Attendance is not required to bid, but attendance should result in a more responsible bid. Abandoned mine closure work is different from standard residential or commercial construction. It requires specialized work in unusual conditions and unique circumstances. *Because of the special nature of abandoned mine closure work, bidders are strongly encouraged to attend the pre-bid meeting.* If attendance at the meeting is not possible, bidders should make every effort to examine the project on their own time. Abandoned mines are hazardous. Do not enter the mines.

5. Proposals

Before submitting a proposal, each bidder shall carefully examine the drawings, specifications and other contract documents and shall visit the site of the WORK; shall fully inform himself or herself as to all existing conditions and limitations; and shall include in the proposal the cost of all items included in the CONTRACT.

CONTRACTOR shall fill out all blanks and include all forms and submittals, or be subject to having the bid disqualified. (See the check list of bid items on page 1).

The pages required for bidding are included in these specifications. For convenience, additional unbound copies of these pages will be distributed at the pre-bid site meeting. The bidder must submit the Proposal, Agency Contract Bond Statement, Bid Bond, Minority and Woman Business Enterprise Representation, Bid Schedule, photocopy of Utah contractor's license, and required submittals in the sealed bid, along with the required Division of Purchasing bid documents.

Deliver proposals to the Division of Purchasing only. Do not deliver proposals to DOGM.

6. Contract and Bond

The contract agreement will be on a form similar to that which is bound in the specifications. The completion date of construction will be as indicated in the proposal. The successful bidder, within 14 days after the bid opening, will be required to furnish a performance bond and a payment bond in an amount equal to one hundred percent (100%)

of the contract price, said bonds shall be secured from a company satisfactory to OWNER.
The surety company must be a U.S. Department of Treasury (Circular 570) listed company.

7. Listing of Subcontractors

The experience and responsibility of Subcontractors may have bearing on the selection of a CONTRACTOR by the OWNER.

The apparent two low bidders shall deliver to OWNER within 24 hours (excluding Saturday, Sunday, and State holidays) for OWNER's approval, a list of the names of Subcontractors to be furnished for each of the principal parts of the work and the corresponding dollar amounts. Each principal part shall mean a subcontract dollar value in excess of \$5,000. A form for this submission is included in these Specifications. Such list shall be binding upon the CONTRACTOR; however, OWNER has a right to reject any or all Subcontractors listed or unlisted which OWNER feels are unqualified to do the work.

OWNER may withhold award of CONTRACT to any particular bidder if one or more of his or her proposed Subcontractors are considered by the OWNER to be unqualified.

8. Interpretation of Plans and Specifications

If any person contemplating submitting a bid for the proposed CONTRACT is in doubt as to the true meaning of any part of the drawings, specifications or other proposed CONTRACT documents, he or she may submit to the Division of Oil, Gas & Mining a written request for an interpretation thereof. The person submitting the request will be responsible for its prompt delivery.

Any interpretation of the proposed documents will be made only by addendum duly issued. A copy of such addendum will be mailed or delivered to each person receiving a set of documents, and posted on the UAMRP website. The OWNER will not be responsible for any other explanations or interpretations of the proposed documents.

9. Addenda or Bulletins

Any addenda or bulletins issued during the time of bidding shall become part of the documents issued to the bidders for the preparation of the bid, shall be covered in the bid, and shall be made a part of the CONTRACT.

10. Bid Schedule

Bidding CONTRACTORS shall examine the specifications and the Bid Schedule and *fill in all blanks* of the CONTRACTOR's Proposal and Bid Schedule and submit all required information contained in the Specifications Schedule, including required submittals, or have the bid subject to disqualification.

11. Award of CONTRACT

The CONTRACT will be awarded as soon as possible to the lowest responsible bidder, provided the bid is reasonable and is in the interests of the OWNER to accept. Responsible bidders will be considered to be those bidders who have fully evaluated the work to be performed, as detailed in their bids. For bidders who have previously performed WORK on a UAMRP project, evaluation of the responsibility of the bidder will also include consideration of past performance on AMR contracts for OWNER. Both the Lump Sum Amount and the Variation in Quantities Unit Price for all work items will be considered in awarding the CONTRACT. Lump Sum Amounts do not have to equal the product of the estimated quantity times the Variation in Quantity Unit Price, but OWNER may reject a bid if unit prices are substantially out of line with the Lump Sum Amount. The OWNER reserves the right to waive any technicalities or formalities in any bid or in the bidding.

12. Qualifications

The CONTRACTOR's and Subcontractor's past performance, organization, equipment, and ability to perform and complete their contracts in the manner and within the time limit specified will be elements along with the cash amount of the bid, which will be considered by the OWNER in the letting of the CONTRACT. A rating of ten points or more on the Contractor Performance Rating Form (Appendix D) is required for any CONTRACTOR who has previously performed WORK on a Utah AMR project. The CONTRACTOR shall comply with and require all

of his or her Subcontractors to comply with the license laws as required by the State of Utah.

13. Cost Breakdown

The CONTRACTOR shall, before starting WORK, submit to OWNER a cost breakdown showing the cost of various segments of the WORK according to a specification heading, the total amount equaling the CONTRACT price. This breakdown shall be used as the basis for the payment of estimates as stated in the contract documents.

14. Right to Reject Proposals

The OWNER reserves the right to reject any or all proposals.

15. Time is Essence and Award of CONTRACT

Time is of the essence in award of the CONTRACT.

16. Withdrawal of Bids

Bids may be withdrawn upon written or electronic request received from bidders prior to the time fixed for opening. Electronic request via FAX or E-mail must be received by OWNER in written form before bid opening. Negligence on the part of the bidder in preparing the bid confers no right for the withdrawal of the bid after it has been opened.

17. Bid Security

Bid Security in the amount of five percent (5%) of the bid, made payable to the Division of Oil, Gas & Mining, shall accompany bid. If a certified or cashier's check is used in lieu of bid bond, a current certificate from an approved surety company guaranteeing execution of a 100% Performance Bond and 100% Payment Bond must be on file with the OWNER.

18. Applicant Violator System (AVS) Eligibility Check

Federal regulations (30 CFR 874.16) effective July 1, 1994, require all successful bidders on contracts funded through Title IV of the Surface Mining Control and Reclamation Act (SMCRA) of 1977 to be eligible under 30 CFR 773.15(b)(1) to receive a permit to conduct surface coal mining operations. In general, this means that the Utah Abandoned Mine Reclamation Program may not hire a contractor who is or whose company is associated with a coal mine operator with outstanding unabated violations under SMCRA. The regulations further require that contractor eligibility be confirmed by the Applicant/Violator System (AVS) at the U.S. Office of Surface Mining (OSM). Compliance checks are also required for all subcontractors receiving 10% or more of the total contract amount.

19. Buy American Act

Compliance with the Buy American Act is required for this project. The Buy American Act requires the use of domestically produced materials.

20. Electronic Specs Available

OWNER has electronic versions of the Contract Specifications available. Files include the text of the Contract Specifications (as a Microsoft Word 2000 file and an Adobe Acrobat *.pdf file), the maps (in *.pdf format, readable with Adobe Acrobat Reader software available free online), and a spreadsheet with the Appendix A mine descriptions and closure specifications (as an Excel *.xls file). The spreadsheet file may be especially useful in preparing a bid because it can automate the arithmetic. Select files may be available for download from the Division of Purchasing website at <http://www.purchasing.utah.gov/bidprocessing/currentbids.asp> or from the DOGM website at <http://www.ogm.utah.gov/amr/contract.htm>. Any questions regarding digital data should be directed to Chris Rohrer, 801-538-5322, e-mail: chrisrohrer@utah.gov or Ken Wyatt, 801-538-5266, e-mail: kenwyatt@utah.gov. Because downloading leaves no record, bidders who download specifications are encouraged to subscribe to the "Updates" feature on the Division of Purchasing website and/or to provide contact information to Chris Rohrer so that they can be put on a notification list in case there is an addendum.

Proposal

NAME OF BIDDER _____ DATE _____

**TO THE DIVISION OF PURCHASING
3150 STATE OFFICE BUILDING
SALT LAKE CITY, UTAH 84114**

Re: RX No: 560 52000000005

Gentlemen:

The undersigned, in compliance with your invitation for bids for the

VERNON SHEEPROCKS PROJECT RECLAMATION CONSTRUCTION

having examined the Drawings and Specifications, related documents, and the site of the proposed work and being familiar with all of the conditions surrounding the construction of the proposed project, including the availability of labor, hereby propose to furnish all labor, materials, and supplies as required for the WORK in accordance with the CONTRACT documents as specified and within the time set forth and at the price stated below. This price is to cover all expenses incurred in performing the WORK required under the CONTRACT Documents of which this Proposal is a part. Negotiation of BID PRICE shall be completed with the OWNER prior to final execution of the CONTRACT.

I/We acknowledge receipt of the following addenda:

For all WORK shown on the Drawings and described in the Specifications, I/we agree to perform for the sum of:

_____ DOLLARS (\$ _____)
(In case of discrepancy, written amount shall govern)

For your consideration, we further propose the following ALTERNATIVES for the following total amounts to be added/deducted to/from the above bid amount:

_____ Add \$ _____ Deduct \$ _____

I/We guarantee to complete the WORK within 70 calendar days after receipt of Notice to Proceed, should I/we be the successful bidder.

For your consideration I/we propose an alternative amount of time to complete the WORK after Notice to Proceed, should I/we be the successful bidder. Such an extension allows the following total amount to be deducted from the bid amount:

Alternative: _____ Total Calendar Days _____ Deduct \$ _____

This bid shall be good for 45 days after bid opening.

Enclosed is _____, as required, in the sum of \$ _____
(Bond or Check)

PROPOSAL

Page 2

If applicable, the CONTRACTOR shall certify that all reclamation fees or civil penalty assessments required by the provision of the Surface Mining Control and Reclamation Act of 1977, P.L. 95-87, 30 U.S.C. Sec 1201 et seq., have been paid. Provided further, this certification requirement shall also apply to all Subcontractors utilized by the successful bidders.

Upon receipt of notice of acceptance of this bid, the undersigned agrees to execute the CONTRACT within five (5) days and deliver OWNER's protective bond (performance and bid) in the prescribed form in the amount of 100% of the general construction contract price for faithful performance of the CONTRACT. The certified check, cashier's check or Bid Bond attached, in the amount not less than five percent (5%) of the above BID PRICE, shall become the property of the Division of Oil, Gas & Mining in the event that the CONTRACT is not negotiated and/or the OWNER's Protective Bond delivered within the time set forth, as liquidated damages for the delay and additional expense caused thereby.

SUBSTITUTIONS AND ALTERNATIVES:

The following substitutions and/or alternatives of materials and/or equipment are proposed for your consideration:

Item	Manufacturer and Description	Addition	Deduction
_____	_____	\$ _____	\$ _____
_____	_____	\$ _____	\$ _____
_____	_____	\$ _____	\$ _____

CONTRACTOR shall furnish and attach to this proposal all submittals as required in the specifications:

Section 0230, Part 1, 1.02
Section 0240, Part 1, 1.02, A
Section 0250, Part 1, 1.02, A

Section 0251, Part 1, 1.02, A
Section 0270, Part 1, 1.02, A-B
Section 0290, Part 1, 1.02, A-B

The undersigned CONTRACTOR's License Number for Utah is _____

Type of Organization:

(Corporation, Co-Partnership, Individual, etc.)

SEAL
(If a Corporation)

(Tax ID No.)

Respectfully submitted,

Name of Bidder

Address

Authorized Signature

STATE OF UTAH
Division of Purchasing
Agency Contract Bond Statement

BIDDING REQUIREMENTS

A 5% bid bond or cashier's check is required by all vendors bidding on this project. The bid bond must be attached to bid **or it will be disqualified.** Checks submitted will be returned certified mail after an official award has been made.

AWARD REQUIREMENTS

A 100% performance/payment bond will be required from the award vendor within 14 days after notification of award. Bonds must be in the form of a cashiers check (no personal or business checks) or a surety bond from a licensed surety company doing business in the State of Utah.

Performance/payment bonds (or checks) will be **held as security for a period of 12 months after completion of project**, per state law. Checks submitted will be returned certified mail only after this specified time. Bidder's name must be the same on both the bid forms and all bonds submitted.

Please indicate which method of bonding will be used if awarded this job:

_____ 100% CASHIERS CHECK

_____ 100% PERFORMANCE/PAYMENT BOND

Bond/Ins Company _____

Agent name _____

Fax # _____ Phone # _____

Upon awarding, the requesting agency will fax a verification to the bonding company listed above to start the bonding process. It is then the responsibility of the vendor to follow through with their bonding agent to assure the bond is processed. After the bonding company sends the bond to vendor for signatures, it is the responsibility of the vendor to mail or hand carry the original bond (no copies or faxes accepted) to the requesting agency, to the attention of the contract person listed on the bid. **No work can commence until the requesting agency has receipt of this performance/payment bond.** After this time the contract will be officially released to the award vendor.

Bid Bond

Date Bond Executed

Principal

Surety

Sum of Bond

KNOW ALL MEN OF THESE PRESENTS, that we, the PRINCIPAL AND SURETY above named, are held and firmly bound unto the STATE OF UTAH, ACTING BY AND THROUGH THE DIVISION OF OIL, GAS AND MINING OF UTAH, IN THE SUM OF THE AMOUNT STATED ABOVE, FOR THE PAYMENT OF WHICH SUM WELL AND TRULY TO BE MADE, we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally, firmly by these presents. THE CONDITION OF THIS OBLIGATION IS SUCH that whereas the principal has submitted the accompanying bid, dated as shown above, for

\$ _____

NOW THEREFORE, THE CONDITION OF THE ABOVE OBLIGATION IS SUCH, that if the said principal shall execute a CONTRACT and give bond to be approved by the Obligee for the faithful performance thereof within ten (10) days after being notified in writing of such CONTRACT to the principal, this obligation shall then be null and void; otherwise it shall remain in full force and effect.

IN WITNESS WHEREOF, the above bounden parties have executed this instrument under their several seals on the date indicated above, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

Individual or Partnership Principal

Corporate Principal

Business Address

Business Address

By:

Affix
Corporate
Seal

Title

Corporate Surety:

Business Address

NOTE: If certified or cashier's check is used in lieu of Bid Bond, a certificate from an approved surety company guaranteeing execution of a full performance bond must accompany bid.

By:

Affix
Corporate
Seal

Attorney-in-Fact

STATE OF UTAH)
COUNTY OF SALT LAKE)

_____, being first duly sworn on oath, deposes and says that he/she is the Attorney-in-Fact of the above-named Surety Company, and that he/she is duly authorized to execute the same and has complied in all respects with the laws of Utah in reference to becoming sole surety upon bonds, undertakings and obligations.

Subscribed and sworn to before me this _____ day of _____, 20_____.

My commission expires _____.

Attorney-in-Fact

Bidder's Proposed Subcontractors, Suppliers & Vendors List

VERNON SHEEPROCKS PROJECT RECLAMATION CONSTRUCTION

AMR/045/910

Utah Division of Oil, Gas & Mining

We submit the following list of first-tier subcontractors, suppliers and vendors for OWNER approval. We recognize this list as binding on us, and acknowledge OWNER'S right to reject any or all subcontractors, suppliers or vendors listed or unlisted which the OWNER feels are unqualified to do the work.

SUBCONTRACTOR	CONTRACT AMOUNT	STATE CONTRACTOR'S LICENSE NO.	LICENSE LIMIT
Excavation:			
Concrete Fabrication:			
Masonry:			
Demolition:			
Steel Fabrication:			
Revegetation:			
Trucking/Transport:			
Polyurethane Foam:			
Other:			
Other:			
Other:			

BIDDER'S PROPOSED SUBCONTRACTORS, SUPPLIERS & VENDORS LIST

Page 2

SUPPLIER/VENDOR	AMOUNT	PRODUCT
Ready-Mix:		
Cement/Block:		
Steel:		
Polyurethane Foam:		
Other:		
Other:		
Other:		

We certify that:

1. This list includes all subcontractors, suppliers and vendors whose bids exceed \$5,000 (for prime contractor bids less than \$250,000) or \$25,000 (for prime contractor bids of \$250,000 or more).
2. Where we have listed "Self" it is our intent to perform said work and that we generally and regularly perform that type of work, and are appropriately licensed.
3. Any approved change in sub-bidders, suppliers or vendors which results in a lower contract price for sub-bid work shall accordingly reduce the total sum of the prime contract.

Signed by: _____

Firm: _____

Date: _____

Note: Failure to submit this form properly completed and signed within 24 hours (not including Saturday, Sunday, or State holidays) of the bid opening may be grounds for OWNER'S refusal to enter into a written CONTRACT with BIDDER. Action will be taken against BIDDER'S bid bond or cashier's check as deemed appropriate by OWNER. Timely notice of unacceptable subcontractors, suppliers or vendors will be given to the BIDDER. Reporting of subcontractors may be required for conformance with 63A-5-208 UCA.

Minority And Woman Business Enterprise Representation

The offeror represents that it ☐ is ☐ is not a minority business enterprise.

A minority business enterprise is defined as a concern that:

- 1) is at least 51 percent owned by one or more individuals who are socially and economically disadvantaged, or a publicly owned business having at least 51 percent of its stock owned by one or more individuals who are socially and economically disadvantaged individuals; and
- 2) has its management and daily business controlled by one or more such individuals.

Qualified groups. The offeror shall presume that socially and economically disadvantaged individuals include Black Americans, Hispanic American, Native Americans, Asian-Pacific American, Asian-Indian Americans, and other individuals found to be qualified by the Small Business Administration under 13 CFR 124.1.

The offeror represents that it ☐ is ☐ is not a woman business enterprise.

A woman business enterprise is defined as a concern that:

- 1) is at least 51 percent owned by one or more women, or a publicly owned business having at least 51 percent of its stock owned by one or more women; and
- 2) has its management and daily business controlled by one or more of the women owners.

Business firms which are 51 percent owned by minorities or women, but are in fact managed and operated by non-minority individuals do not qualify as minority or woman business enterprises.

The offeror represents that the following proposed subcontractor(s) is (are) a minority or woman business enterprise:

Signature of Offeror

Title

Date

This information is requested for Federal reporting purposes only. Minority/woman status has no bearing on the selection of a contractor.

Applicant/Violator System Eligibility Check

Federal regulations (30 CFR 874.16) effective July 1, 1994, require all successful bidders on contracts funded through Title IV of the Surface Mining Control and Reclamation Act (SMCRA) of 1977 to be eligible under 30 CFR 773.15(b)(1) to receive a permit to conduct surface coal mining operations. In general, this means that the Utah Abandoned Mine Reclamation Program may not hire a contractor who is or whose company is associated with a coal mine operator with outstanding unabated violations under SMCRA. The regulations further require that contractor eligibility be confirmed by the Applicant/Violator System (AVS) at the U.S. Office of Surface Mining (OSM). Compliance checks are also required for all subcontractors receiving 10% or more of the total contract amount.

To comply with these rules, prospective bidders must provide the Division of Oil, Gas and Mining with information on the ownership and control of the firm for AVS review. A bidder must receive a recommendation of "Issue" or "Conditional Issue" from the OSM AVS office to be awarded the contract.

The two apparent low bidders shall submit to DOGM within 24 hours (excluding weekends and holidays) of the bid opening either a notarized copy of the "AML Contractor Ownership and Control Information Package" or else a copy of the "AML Contractor Ownership and Control Data Certification" updating and certifying previously submitted information. DOGM will provide forms for these submissions or you may download from the Internet at <http://www.avs.osmre.gov>. DOGM will submit the ownership and control information to OSM for AVS review. OSM's review will be completed within 72 hours if the ownership and control data entry is complete.

Bidders may choose to submit the required information prior to submitting the bid proposal in order to facilitate data entry by OSM and expedite the AVS review and contract award process. Forms may be obtained from DOGM.

The following information is required for the "AML Contractor Ownership and Control Information Package":

- Contractor's identity (name, address, telephone, Social Security number, Employee ID number).
- Contractor's legal structure (sole proprietorship, partnership, corporation).
- Identities (name, address, telephone, SSN, EIN, % ownership) of every officer, general partner, shareholder (10% voting stock), director, or other controlling entity.
- Identities of parties with the authority to commit the assets of the firm.
- Identities of other relationships that give direct or indirect authority over the execution of the work.
- List (name, address, permit number, MSHA number) of all permits issued in the last five years to or pending permit applications for coal mining operations by any parties identified above.
- All of the above information for any subcontractor with 10% of the contract amount.

Vernon Sheeprocks Project Summary Bid Schedule

<u>Bid Item</u>	<u>Lump Sum Amount</u>
RECLAMATION CONSTRUCTION	
Mine Closure TOTAL (from Mine Closure Summary)	\$ _____
Site Grading/Earthwork TOTAL (from Site Grading/Earthwork Bid Schedule)	\$ _____
Revegetation TOTAL (from Revegetation Bid Schedule)	\$ _____
RECLAMATION CONSTRUCTION TOTAL (Add Mine Closure, Site Grading/Earthwork, and Revegetation TOTALs above.)	\$ _____
ACCESS IMPROVEMENT	\$ _____
MOBILIZATION/DEMOBILIZATION	\$ _____
BONDS & INSURANCE	\$ _____
TOTAL CONTRACT BID PRICE	\$ _____

TOTAL CONTRACT BID PRICE WRITTEN:

DATE: _____ BY: _____

FIRM: _____

By the above signature I/we acknowledge that I/we have examined the site conditions and have made the measurements and evaluations necessary to plan and bid the WORK.

Note: The "Variation in Quantity Unit Price" on the Mine Closure Bid Schedule will be used for adjustments to the CONTRACT amount where the actual WORK quantity varies by more than 15% from the estimated quantity listed in the bid schedule (see Supplementary Condition No. 6: Variation in Estimated Quantity). The "Variation in Quantity Unit Price" will also be used as the basis for determining costs for closures not currently specified in the WORK that may be added in the future by change order. Award of CONTRACT will be based on consideration of both the base "Bid Price" and the "Variation in Quantity Unit Price" for additional/reduced WORK.

Vernon Sheeprocks Project Mine Closure Bid Schedule

Page 1

Note: Sites are listed here in the same sequence as they are listed in the Mine Closure Schedule in Appendix A, that is, sorted by detail map number and then by tag number. Sites with no mine closure specified ("Closure Method" listed as "None" in Appendix A) are not included in the Bid Sheets.

Note: Revegetation is required at mine closure locations, but is considered incidental to the mine closure task. Costs for revegetation of mine closure locations should be incorporated into the mine closure bid. No separate bidding or payment will be made for mine closure revegetation. Revegetation is a separate bid and payment item only at the ten sites scheduled for site grading and earthwork.

Note: Award of CONTRACT will be based on consideration of both the base "Bid Price" and the "Variation in Quantity Unit Price" for additional/reduced WORK

Detail Map D1: North Oak Brush				
Site ID/Tag No.	Specified Closure	Estimated Quantity	Bid Price Amount	Variation in Quantity Unit Price
3100604HO002	BACKFILL (Equip)	30 cy	\$	\$ /cy
3100609HC007	BACKFILL (Hand)	5 cy	\$	\$ /cy
3100609HO003	BAT GATE	30 sf	\$	\$ /sf
Detail Map D1: North Oak Brush Mine Closure SUBTOTAL (carry over to the Mine Closure Summary)			\$	

Vernon Sheeprocks Project
Mine Closure Bid Schedule
Page 2

Detail Map D2: Harker Canyon				
Site ID/Tag No.	Specified Closure	Estimated Quantity	Bid Price Amount	Variation in Quantity Unit Price
3100610HO001	BACKFILL (Hand)	20 cy	\$	\$ /cy
3100610HO002	BACKFILL (Hand)	15 cy	\$	\$ /cy
3100610HO003	BACKFILL (Hand)	10 cy	\$	\$ /cy
3100610HO004	BACKFILL (Hand)	8 cy	\$	\$ /cy
3100610HO005	REBAR GRATE	66 sf	\$	\$ /sf
3100610HO006	BACKFILL (Hand)	20 cy	\$	\$ /cy
3100610HO007	BACKFILL (Hand)	5 cy	\$	\$ /cy
3100610HO008	BACKFILL (Hand)	6 cy	\$	\$ /cy
3100610HO009	BACKFILL (Hand)	20 cy	\$	\$ /cy
3100610HO010	WALL (Stone)	30 sf	\$	\$ /sf
3100610HO012	BAT GATE	42 sf	\$	\$ /sf
3100610HO013	WALL (Stone)	30 sf	\$	\$ /sf
3100610HO015	WALL (Stone)	36 sf	\$	\$ /sf
3100610HO016	REBAR GRATE	40 sf	\$	\$ /sf
3100610HO017	WALL (Stone)	30 sf	\$	\$ /sf
3100610HO018	BACKFILL (Hand)	5 cy	\$	\$ /cy
3100610HO020	BACKFILL (Hand)	8 cy	\$	\$ /cy
3100610IO002	BACKFILL (Hand)	10 cy	\$	\$ /cy
3100610IO003	BACKFILL (Hand)	5 cy	\$	\$ /cy
3100610IO004	BACKFILL (Hand)	15 cy	\$	\$ /cy
3100610IO005	REBAR GRATE	72 sf	\$	\$ /sf
3100610IO006	BACKFILL (Hand)	20 cy	\$	\$ /cy
3100610PR005	BACKFILL (Hand)	2 cy	\$	\$ /cy
3100610VO001	BACKFILL (Equip)	50 cy	\$	\$ /cy
Detail Map D2: Harker Canyon Mine Closure SUBTOTAL (carry over to the Mine Closure Summary)			\$	

Vernon Sheeprocks Project
Mine Closure Bid Schedule
Page 3

Detail Map D3: Bennion				
Site ID/Tag No.	Specified Closure	Estimated Quantity	Bid Price Amount	Variation in Quantity Unit Price
3100517HO001	BACKFILL (Hand)	7 cy	\$	\$ /cy
3100518HO001	BAT GATE	48 sf	\$	\$ /sf
3100518HO002	BACKFILL (Hand)	5 cy	\$	\$ /cy
3100518IO001	BACKFILL (Hand)	15 cy	\$	\$ /cy
3100518VO001	BACKFILL (Equip)	20 cy	\$	\$ /cy
3100518VO002	BACKFILL (Hand)	10 cy	\$	\$ /cy
3100613HC010	WALL (Block)	36 sf	\$	\$ /sf
3100613VO001	REBAR GRATE	80 sf	\$	\$ /sf
Detail Map D3: Bennion Mine Closure SUBTOTAL (carry over to the Mine Closure Summary)			\$	

Detail Map D4: Little Valley North				
Site ID/Tag No.	Specified Closure	Estimated Quantity	Bid Price Amount	Variation in Quantity Unit Price
3100520HO001	WALL (Block)	24 sf	\$	\$ /sf
3100521HO001	BAT GATE	15 sf	\$	\$ /sf
3100521HO002	REBAR GRATE	64 sf	\$	\$ /sf
3100521VO001	REBAR GRATE	150 sf	\$	\$ /sf
3100522VO001	BACKFILL (Equip)	25 cy	\$	\$ /cy
Detail Map D4: Little Valley North Mine Closure SUBTOTAL (carry over to the Mine Closure Summary)			\$	

Vernon Sheeprocks Project
Mine Closure Bid Schedule
Page 4

Detail Map D5: Little Valley South				
Site ID/Tag No.	Specified Closure	Estimated Quantity	Bid Price Amount	Variation in Quantity Unit Price
3100521VC001	BACKFILL (Equip)	15 cy	\$	\$ /cy
3100528IO001	BAT GATE	20 sf	\$	\$ /sf
3100528VO001	REBAR GRATE	88 sf	\$	\$ /sf
3100529IO001	BAT GATE	30 sf	\$	\$ /sf
3100529IO002	BACKFILL (Hand)	20 cy	\$	\$ /cy
Detail Map D5: Little Valley South Mine Closure SUBTOTAL (carry over to the Mine Closure Summary)			\$	

Detail Map D6: Joes Canyon				
Site ID/Tag No.	Specified Closure	Estimated Quantity	Bid Price Amount	Variation in Quantity Unit Price
3100624HO001	WALL (Block)	32 sf	\$	\$ /sf
3100624HO002	BAT GATE	24 sf	\$	\$ /sf
3100624HO003	BACKFILL (Equip)	15 cy	\$	\$ /cy
3100624VO001	BACKFILL (Equip)	40 cy	\$	\$ /cy
3100624VO002	BACKFILL (Hand)	20 cy	\$	\$ /cy
Detail Map D6: Joes Canyon Mine Closure SUBTOTAL (carry over to the Mine Closure Summary)			\$	

Detail Map D7: Sheeprock				
Site ID/Tag No.	Specified Closure	Estimated Quantity	Bid Price Amount	Variation in Quantity Unit Price
3100623IO001	BACKFILL (Hand)	25 cy	\$	\$ /cy
Detail Map D7: Sheeprock Mine Closure SUBTOTAL (carry over to the Mine Closure Summary)			\$	

Vernon Sheeprocks Project
Mine Closure Bid Schedule
Page 5

Detail Map D8: Hard to Beat South				
Site ID/Tag No.	Specified Closure	Estimated Quantity	Bid Price Amount	Variation in Quantity Unit Price
3100622HO001	WALL (Block)	48 sf	\$	\$ /sf
3100622HO002	BAT GATE	56 sf	\$	\$ /sf
Detail Map D8: Hard to Beat South Mine Closure SUBTOTAL (carry over to the Mine Closure Summary)			\$	

Detail Map D9: Hard to Beat North				
Site ID/Tag No.	Specified Closure	Estimated Quantity	Bid Price Amount	Variation in Quantity Unit Price
3100614HO002	BAT GATE	42 sf	\$	\$ /sf
3100614VO001	BACKFILL (Equip)	10 cy	\$	\$ /cy
3100615HO001	BAT GATE	30 sf	\$	\$ /sf
Detail Map D9: Hard to Beat North Mine Closure SUBTOTAL (carry over to the Mine Closure Summary)			\$	

Detail Map D10: Cottonwood				
Site ID/Tag No.	Specified Closure	Estimated Quantity	Bid Price Amount	Variation in Quantity Unit Price
There are no mine closures in this Detail Map area.			\$ 0.00	na
Detail Map D10: Cottonwood Mine Closure SUBTOTAL (carry over to the Mine Closure Summary)			\$ 0.00	

Vernon Sheeprocks Project
Mine Closure Bid Schedule
Page 6

Detail Map D11: South Pine				
Site ID/Tag No.	Specified Closure	Estimated Quantity	Bid Price Amount	Variation in Quantity Unit Price
3100609HO001	WALL (Stone)	49 sf	\$	\$ /sf
3100609IO001	REBAR GRATE	64 sf	\$	\$ /sf
3100609VO001	BACKFILL (Hand)	15 cy	\$	\$ /cy
Detail Map D11: South Pine Mine Closure SUBTOTAL (carry over to the Mine Closure Summary)				

Detail Map D12: South Oak Brush				
Site ID/Tag No.	Specified Closure	Estimated Quantity	Bid Price Amount	Variation in Quantity Unit Price
3100607HO001	CMP BAT GATE	1 ls	\$	\$ /ea
3100607HO002	BACKFILL (Equip)	50 cy	\$	\$ /cy
3100607HO003	WALL (Block)	36 sf	\$	\$ /sf
3100607HO004	BACKFILL (Equip)	17 cy	\$	\$ /cy
3100607HO005	BACKFILL (Equip)	15 cy	\$	\$ /cy
3100607HO006	BACKFILL (Hand)	1 cy	\$	\$ /cy
3100607VO001	BACKFILL (Equip)	60 cy	\$	\$ /cy
3100607VO002	BACKFILL (Equip)	200 cy	\$	\$ /cy
3100607VO003	BACKFILL (Equip)	50 cy	\$	\$ /cy
3100607VO004	BACKFILL (Equip)	90 cy	\$	\$ /cy
3100607VO005	BACKFILL (Equip)	110 cy	\$	\$ /cy
Detail Map D12: South Oak Brush Mine Closure SUBTOTAL (carry over to the Mine Closure Summary)			\$	

Vernon Sheeprocks Project
Mine Closure Bid Schedule
Page 7

Sites not in a Detail Map Area				
Site ID/Tag No.	Specified Closure	Estimated Quantity	Bid Price Amount	Variation in Quantity Unit Price
3090627IO001 Subarea Map S2	BACKFILL (Equip)	60 cy	\$	\$ /cy
3090711VO001 Subarea Map S1	BACKFILL (Hand)	30 cy	\$	\$ /cy
3100511HO001 Subarea Map S4	BAT GATE	24 sf	\$	\$ /sf
Sites not in a Detail Map Area Mine Closure SUBTOTAL (carry over to the Mine Closure Summary)			\$	

Vernon Sheeprocks Project
Mine Closure Bid Schedule
Page 8

Mine Closure Summary

Detail Map Area	Mine Closure SUBTOTAL
Detail Map D1: North Oak Brush	\$
Detail Map D2: Harker Canyon	\$
Detail Map D3: Bennion	\$
Detail Map D4: Little Valley North	\$
Detail Map D5: Little Valley South	\$
Detail Map D6: Joes Canyon	\$
Detail Map D7: Sheeprock	\$
Detail Map D8: Hard to Beat South	\$
Detail Map D9: Hard to Beat North	\$
Detail Map D10: Cottonwood	\$ 0.00
Detail Map D11: South Pine	\$
Detail Map D12: South Oak Brush	\$
Sites not in a Detail Map Area	\$
Mine Closure TOTAL (carry over to the Summary Bid Schedule)	\$

**Vernon Sheeprocks Project
Site Grading/Earthwork Bid Schedule**

Site ID/Tag No.	Location Detail Map Reference	Estimated Quantity	Bid Price Amount	Variation in Quantity Unit Price
3100602HO001 (3100602WP001)	Harker Canyon Map D2	900 cy	\$	\$ /cy
3100602HO003	Harker Canyon Map D2	250 cy	\$	\$ /cy
3100522HC001	Little Valley North Map D4	150 cy	\$	\$ /cy
3100522HO001	Little Valley North Map D4	1100 cy	\$	\$ /cy
3100522TR001	Little Valley North Map D4	1200 cy	\$	\$ /cy
3100522TR002	Little Valley North Map D4	600 cy	\$	\$ /cy
3100614HO002 (3100614WP001)	Hard to Beat North Map D9	10,000 cy	\$	\$ /cy
3100615HO001 (3100615WP002)	Hard to Beat North Map D9	500 cy	\$	\$ /cy
3090620VO001	East Gov't/No. Oak Brush/Harker Subarea Map S2 (No Detail Map)	290 cy	\$	\$ /cy
3100524HO001	Vernon/Little Valley Subarea Map S4 (No Detail Map)	1200 cy	\$	\$ /cy
Site Grading/Earthwork TOTAL (carry over to the Summary Bid Schedule)			\$	

Note: Estimated quantities for site grading and earthwork are based on the volume of mine dump material to be buried and do not reflect the total volume of material that must be moved in order to bury the dump (burial pit excavation, cover material stockpiling, dump grading, cover material spreading).

Note: Award of CONTRACT will be based on consideration of both the base "Bid Price" and the "Variation in Quantity Unit Price" for additional/reduced WORK.

**Vernon Sheeprocks Project
Revegetation Bid Schedule**

Site ID/Tag No.	Location Detail Map Reference	Estimated Quantity	Bid Price Amount	Variation in Quantity Unit Price
3100602HO001 (3100602WP001)	Harker Canyon Map D2	0.7 acre	\$	\$ /acre
3100602HO003	Harker Canyon Map D2	0.1 acre	\$	\$ /acre
3100522HC001	Little Valley North Map D4	0.2 acre	\$	\$ /acre
3100522HO001	Little Valley North Map D4	1.4 acre	\$	\$ /acre
3100522TR001	Little Valley North Map D4	1.4 acre	\$	\$ /acre
3100522TR002	Little Valley North Map D4	0.2 acre	\$	\$ /acre
3100614HO002 (3100614WP001)	Hard to Beat North Map D9	1.4 acre	\$	\$ /acre
3100615HO001 (3100615WP002)	Hard to Beat North Map D9	0.3 acre	\$	\$ /acre
3090620VO001	East Gov't/No. Oak Brush/Harker Subarea Map S2 (No Detail Map)	0.1 acre	\$	\$ /acre
3100524HO001	Vernon/Little Valley Subarea Map S4 (No Detail Map)	0.4 acre	\$	\$ /acre
Revegetation TOTAL (carry over to the Summary Bid Schedule)			\$	

Note: Revegetation is a separate bid and payment item only at the ten sites scheduled for site grading and earthwork. Revegetation is required at mine closure locations, but is considered incidental to the mine closure task. Costs for revegetation of mine closure locations should be incorporated into the mine closure bid. No separate bidding or payment will be made for mine closure revegetation.

Note: Award of CONTRACT will be based on consideration of both the base "Bid Price" and the "Variation in Quantity Unit Price" for additional/reduced WORK

Contract Form

Contract # _____

1. CONTRACTING PARTIES: This contract is between the following agency of the State of Utah:

Department of Natural Resources 560 Division of Oil, Gas and Mining, referred to as OWNER,
Agency Name Agency Code Division

and the following CONTRACTOR:

Name _____

Address _____

City _____ State _____ Zip _____

Contact Person _____

Phone _____ E-mail Address _____

LEGAL STATUS OF CONTRACTOR

- ☐ Sole Proprietor
- ☐ Non-Profit Corporation
- ☐ For-Profit Corporation
- ☐ Partnership
- ☐ Government Agency

Federal Tax ID# _____

Vendor # _____

Commodity Code # 96273

FI-NET Accounting Codes: Vernon Sheeprocks Project

Fund	Agency	Org	Approp. Unit	Activity (Mine)	Grant Category	Project or Job
100	560	2881	REG		GSP1	NA 129 01 G
100	560	2881	REG		GFF2	NL 129 01 G

2. GENERAL PURPOSE OF CONTRACT: The general purpose of this contract is for reclamation construction of abandoned mine sites in Tooele County, Utah, referred to as the Vernon Sheeprocks Project.

3. PROCUREMENT: This contract is entered into as a result of the procurement process on Bid # PM000, Requisition # RX 560 52000000005, FY2005, or the attached pre-approved sole source.

4. CONTRACT PERIOD: Effective date May 00, 2005. Termination date June 30, 2006 unless terminated early or extended in accordance with the terms and conditions of this contract. Renewal options (if any) None.

5. CONTRACT COSTS: CONTRACTOR will be paid a maximum of \$ *** for costs authorized by this contract.

6. ATTACHMENT A: Division of Purchasing's Standard Terms and Conditions.

ATTACHMENT B: SCOPE OF WORK, hereinafter the WORK, to be performed is that contained in the Drawings and Technical Specifications prepared by: the Division of Oil, Gas & Mining and entitled *TECHNICAL SPECIFICATIONS: Vernon Sheeprocks Project Reclamation Construction*; the General Specifications prepared by the Division of Oil, Gas and Mining entitled *GENERAL CONDITIONS FOR ABANDONED MINE RECLAMATION PROJECTS*, dated June, 1988; and the Supplementary Conditions listed in the Technical Specifications cited above.

ATTACHMENT C: Division of Oil, Gas and Mining Construction Terms and Conditions.

ATTACHMENT D: Cost Schedule

Any conflicts between Attachment A and other Attachments will be resolved in favor of Attachment A.

Contract

Vernon Sheeprocks Project

7. DOCUMENTS INCORPORATED INTO THIS CONTRACT BY REFERENCE BUT NOT ATTACHED:

- a. All other governmental laws, regulations, or actions applicable to the goods and/or services authorized by this contract.
- b. Utah State Procurement Code, Procurement Rules, and CONTRACTOR'S response to Bid # PM***, dated May 11, 2005.

IN WITNESS WHEREOF, the parties sign and cause this contract to be executed.

FOR THE CONTRACTOR:

ATTEST:

CONTRACTOR:

Secretary of Corporation or Witness

BY: _____

NAME: _____

TITLE: _____

TAXPAYER ID #: _____

FOR THE STATE OF UTAH:APPROVED FOR AVAILABILITY OF FUNDS:
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS & MINING_____
Anthony Gallegos, Acting AMR Administrator_____
Mary Ann Wright, Acting Director_____
Paula Dupin-Zahn, Budget/AccountingAPPROVED FOR EXPENDITURE:
DIVISION OF PURCHASING

DIVISION OF FINANCE

Douglas G. Richins, Director of Purchasing_____
(for) Kim S. Thorne, Director of Finance

Chris Rohrer	(801) 538-5322	(801) 359-3940	chrisrohrer@utah.gov
Agency Contact	Phone Number	Fax Number	E-mail Address

APPROVED AS TO FORM BY
ATTORNEY GENERAL'S OFFICE
DOGM Construction Contract (revised 06/17/04)
Reference: Division of Finance Form FI 84 (revised 08/26/03)

Contract

Vernon Sheeprocks Project

ATTACHMENT A STANDARD TERMS AND CONDITIONS

1. AUTHORITY: Provisions of this contract are pursuant to the authority set forth in 63-56, Utah Code Annotated, 1953, as amended, Utah State Procurement Rules (Utah Administrative Code Section R33), and related statutes which permit the State to purchase certain specified services, and other approved purchases for the State.

2. CONTRACT JURISDICTION, CHOICE OF LAW, AND VENUE: The provisions of this contract shall be governed by the laws of the State of Utah. The parties will submit to the jurisdiction of the courts of the State of Utah for any dispute arising out of this Contract or the breach thereof. Venue shall be in Salt Lake City, in the Third Judicial District Court for Salt Lake County.

3. LAWS AND REGULATIONS: Any and all supplies, services and equipment furnished will comply fully with all applicable Federal and State laws and regulations.

4. RECORDS ADMINISTRATION: The CONTRACTOR shall maintain, or supervise the maintenance of all records necessary to properly account for the payments made to the CONTRACTOR for costs authorized by this contract. These records shall be retained by the CONTRACTOR for at least four years after the contract terminates, or until all audits initiated within the four years, have been completed, whichever is later. The CONTRACTOR agrees to allow State and Federal auditors, and State Agency Staff, access to all the records to this contract, for audit and inspection, and monitoring of services. Such access will be during normal business hours, or by appointment.

5. CONFLICT OF INTEREST: CONTRACTOR represents that none of its officers or employees are officers or employees of the State of Utah, unless disclosure has been made in accordance with 67-16-8, Utah Code Annotated, 1953, as amended.

6. CONTRACTOR, AN INDEPENDENT CONTRACTOR: The CONTRACTOR shall be an independent contractor, and as such, shall have no authorization, express or implied, to bind the State to any agreements, settlements, liability, or understanding whatsoever, and agrees not to perform any acts as agent for the State, except as herein expressly set forth. Compensation stated herein shall be the total amount payable to the CONTRACTOR by the State. The CONTRACTOR shall be responsible for the payment of all income tax and social security amounts due as a result of payments received from the State for these contract services. Persons employed by the State and acting under the direction of the State shall not be deemed to be employees or agents of the CONTRACTOR.

7. INDEMNITY CLAUSE: The CONTRACTOR agrees to indemnify, save harmless, and release the State of Utah, and all its officers, agents, volunteers, and employees from and against any and all loss, damages, injury, liability, suits, and proceedings arising out of the performance of this contract which are caused in whole or in part by the negligence of the CONTRACTOR's officers, agents, volunteers, or employees, but not for claims arising from the State's sole negligence.

8. EQUAL OPPORTUNITY CLAUSE: The CONTRACTOR agrees to abide by the provisions of Title VI and VII of the Civil Rights Act of 1964 (42USC 2000e) which prohibits discrimination against any employee or applicant for employment or any applicant or recipient of services, on the basis of race, religion, color, or national origin; and further agrees to abide by Executive Order No. 11246, as amended, which prohibits discrimination on the basis of sex; 45 CFR 90 which prohibits discrimination on the basis of age; and Section 504 of the Rehabilitation Act of 1973, or the Americans with Disabilities Act of 1990 which prohibits discrimination on the basis of disabilities. Also, the CONTRACTOR agrees to abide by Utah's Executive Order, dated March 17, 1993, which prohibits sexual harassment in the work place.

9. SEPARABILITY CLAUSE: A declaration by any court, or any other binding legal source, that any provision of this contract is illegal and void shall not affect the legality and enforceability of any other provision of this contract, unless the provisions are mutually dependent.

10. RENEGOTIATION OR MODIFICATIONS: This contract may be amended, modified, or supplemented only by written amendment to the contract, executed by the same persons or by persons holding the same position as persons who signed the original agreement on behalf of the parties hereto, and attached to the original signed copy of the contract.

11. DEBARMENT: The CONTRACTOR certifies that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction (contract), by any governmental department or agency. If the CONTRACTOR cannot certify this statement, attach a written explanation for review by the State. The CONTRACTOR must notify the State Director of Purchasing within 30 days if debarred by any governmental entity during the Contract period.

12. TERMINATION: Unless otherwise stated in the Special Terms and Conditions, this contract may be terminated, with cause by either party, in advance of the specified termination date, upon written notice being given by the other party. The party in violation will be given ten (10) working days after notification to correct and cease the violations, after which the contract may be terminated for cause. This contract may be terminated without cause, in advance of the specified expiration date, by either party, upon 90 days prior written notice being given the other party. On termination of this contract, all accounts and payments will be processed according to the financial arrangements set forth herein for approved services rendered to date of termination.

Contract

Vernon Sheeprocks Project

13. NONAPPROPRIATION OF FUNDS: The CONTRACTOR acknowledges that the State cannot contract for the payment of funds not yet appropriated by the Utah State Legislature. If funding to the State is reduced due to an order by the Legislature or the Governor, or is required by State law, or if federal funding (when applicable) is not provided, the State may terminate this contract or proportionately reduce the services and purchase obligations and the amount due from the State upon 30 days written notice. In the case that funds are not appropriated or are reduced, the State will reimburse CONTRACTOR for products delivered or services performed through the date of cancellation or reduction, and the State will not be liable for any future commitments, penalties, or liquidated damages.

14. SALES TAX EXEMPTION: The State of Utah's sales and use tax exemption number is E33399. The tangible personal property or services being purchased are being paid from State funds and used in the exercise of that entity's essential functions. If the items being purchased are construction materials, they will be converted into real property by employees of this government entity, unless otherwise stated in the contract.

15. WARRANTY: The CONTRACTOR agrees to warrant and assume responsibility for all products (including hardware, firmware, and/or software products) that it licenses, contracts, or sells to the State of Utah under this contract for a period of one year, unless otherwise specified and mutually agreed upon elsewhere in this contract. The CONTRACTOR (seller) acknowledges that all warranties granted to the buyer by the Uniform Commercial Code of the State of Utah apply to this contract. Product liability disclaimers and/or warranty disclaimers from the seller are not applicable to this contract unless otherwise specified and mutually agreed upon elsewhere in this contract. In general, the CONTRACTOR warrants that: (1) the product will do what the salesperson said it would do, (2) the product will live up to all specific claims that the manufacturer makes in their advertisements, (3) the product will be suitable for the ordinary purposes for which such product is used, (4) the product will be suitable for any special purposes that the State has relied on the CONTRACTOR's skill or judgment to consider when it advised the State about the product, (5) the product has been properly designed and manufactured, and (6) the product is free of significant defects or unusual problems about which the State has not been warned. Remedies available to the State include the following: The CONTRACTOR will repair or replace (at no charge to the State) the product whose nonconformance is discovered and made known to the CONTRACTOR in writing. If the repaired and/or replaced product proves to be inadequate, or fails of its essential purpose, the CONTRACTOR will refund the full amount of any payments that have been made. Nothing in this warranty will be construed to limit any rights or remedies the State of Utah may otherwise have under this contract.

16. PUBLIC INFORMATION: CONTRACTOR agrees that the contract will be a public document, and may be available for distribution. And CONTRACTOR gives the State express permission to make copies of the contract and/or of the response to the solicitation in accordance with the State of Utah Government Records Access and Management Act. The permission to make copies as noted will take precedence over any statements of confidentiality, proprietary information, copyright information, or similar notation.

17. DELIVERY: Unless otherwise specified in this contract, all deliveries will be F.O.B. destination with all transportation and handling charges paid by the CONTRACTOR. Responsibility and liability for loss or damage will remain with CONTRACTOR until final inspection and acceptance when responsibility will pass to the State except as to latent defects, fraud and CONTRACTOR's warranty obligations.

18. ORDERING AND INVOICING: All orders will be shipped promptly in accordance with the delivery schedule. The CONTRACTOR will promptly submit invoices (within 30 days of shipment or delivery of services) to the State. The State contract number and/or the agency purchase order number shall be listed on all invoices, freight tickets, and correspondence relating to the contract order. The prices paid by the State will be those prices listed in the contract. The State has the right to adjust or return any invoice reflecting incorrect pricing.

19. PAYMENT: Payments are normally made within 30 days following the date the order is delivered or the date a correct invoice is received, whichever is later. All payments to the CONTRACTOR will be remitted by mail unless paid by the State of Utah's Purchasing Card.

20. PATENTS, COPYRIGHTS, ETC.: The CONTRACTOR will release, indemnify and hold the State, its officers, agents and employees harmless from liability of any kind or nature, including the CONTRACTOR's use of any copyrighted or un-copyrighted composition, secret process, patented or un-patented invention, article or appliance furnished or used in the performance of this contract.

21. ASSIGNMENT/SUBCONTRACT: CONTRACTOR will not assign, sell, transfer, subcontract or sublet rights, or delegate responsibilities under this contract, in whole or in part, without the prior written approval of the State.

22. DEFAULT AND REMEDIES: Any of the following events will constitute cause for the State to declare CONTRACTOR in default of the contract: 1. Nonperformance of contractual requirements; 2. A material breach of any term or condition of this contract. The State will issue a written notice of default providing a ten (10) day period in which CONTRACTOR will have an opportunity to cure. Time allowed for cure will not diminish or eliminate CONTRACTOR's liability for damages. If the default remains, after CONTRACTOR has been provided the opportunity to cure, the State may do one or more of the following: 1.

Contract

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Exercise any remedy provided by law; 2. Terminate this contract and any related contracts or portions thereof; 3. Impose liquidated damages, if liquidated damages are listed in the contract; 4. Suspend CONTRACTOR from receiving future solicitations.

23. FORCE MAJEURE: Neither party to this contract will be held responsible for delay or default caused by fire, riot, acts of God and/or war which is beyond that party's reasonable control. The State may terminate this contract after determining such delay or default will reasonably prevent successful performance of the contract.

24. PROCUREMENT ETHICS: The CONTRACTOR understands that a person who is interested in any way in the sale of any supplies, services, construction, or insurance to the State of Utah is violating the law if the person gives or offers to give any compensation, gratuity, contribution, loan or reward, or any promise thereof to any person acting as a procurement officer on behalf of the State, or who in any official capacity participates in the procurement of such supplies, services, construction, or insurance, whether it is given for their own use or for the use or benefit of any other person or organization (63-56-73, Utah Code Annotated, 1953, as amended).

25. CONFLICT OF TERMS: CONTRACTOR Terms and Conditions that apply must be in writing and attached to the contract. No other Terms and Conditions will apply to this contract including terms listed or referenced on a CONTRACTOR's website, terms listed in a CONTRACTOR quotation/sales order, etc. In the event of any conflict in the contract terms and conditions, the order of precedence shall be: 1. State Standard Terms and Conditions; 2. State Special Terms and Conditions; 3. CONTRACTOR Terms and Conditions.

DOGM Standard Terms and Conditions (revised 06/11/04)

Reference: Division of Purchasing Standard Terms and Conditions (revised 11/21/03)

End Attachment A

Contract

Vernon Sheeprocks Project

ATTACHMENT B SCOPE OF WORK

SCOPE OF WORK, hereinafter the WORK, to be performed is that contained in the Drawings and Technical Specifications prepared by: the Division of Oil, Gas & Mining and entitled *TECHNICAL SPECIFICATIONS: Vernon Sheeprocks Project Reclamation Construction*; the General Specifications prepared by the Division of Oil, Gas and Mining entitled *GENERAL CONDITIONS FOR ABANDONED MINE RECLAMATION PROJECTS*, dated June 1988; and the Supplementary Conditions listed in the Technical Specifications cited above.

The CONTRACTOR agrees to furnish all labor, materials and equipment to complete the WORK as described the Drawings, Specifications, and addenda to the specifications which are hereby made a part of this CONTRACT by reference. It is understood and agreed by the parties hereto that all WORK will be performed as required in the Drawings and Specifications and will be subject to inspection and approval prior to final acceptance by the OWNER. The relationship of the CONTRACTOR to the OWNER hereunder is that of an independent CONTRACTOR.

End Attachment B

ATTACHMENT C DIVISION OF OIL, GAS AND MINING CONSTRUCTION TERMS AND CONDITIONS

ARTICLE 1. TIME OF COMPLETION. The WORK under this CONTRACT shall be commenced upon notice to proceed and shall be completed within 70 calendar days after date marked on registered receipt of said Notice to Proceed and no later than September 2, 2005. WORK delays caused by weather may, at the discretion of the OWNER, extend the completion date. CONTRACTOR also agrees to the liquidated damages provisions of Article 12.

ARTICLE 2. PAYMENT. OWNER will promptly pay for services performed by the CONTRACTOR. Vouchers for reimbursement of expenditures under this Agreement must be filed promptly with OWNER's Representative by the tenth day of the month following the month in which WORK has been performed. OWNER will withhold from payment an amount not to exceed 10% of the total CONTRACT cost, except for Mobilization, which will have 40% withheld, until all WORK has been performed by the CONTRACTOR and is approved and accepted by OWNER.

ARTICLE 3. INDEBTEDNESS. Before final payment is made, the CONTRACTOR must submit evidence including lien waivers, satisfactory to the OWNER that all payrolls, materials bills, subcontracts and outstanding indebtedness in connection with the WORK have been paid or that arrangements have been made for their payment. Payment will be made without unnecessary delay after receipt of such evidence as mentioned above and Final Acceptance of the WORK by the OWNER.

ARTICLE 4. ADDITIONAL WORK. It is understood and agreed by the parties hereto that no money will be paid to the CONTRACTOR for any additional WORK, labor or materials furnished unless a new CONTRACT in the form of a Change Order or a modification hereof for such additional materials or labor has been executed by OWNER and CONTRACTOR. The OWNER specifically reserves the right to modify or amend this CONTRACT and the total sum due hereunder either by enlarging or restricting the WORK through a change order.

ARTICLE 5. ACCEPTANCE. The WORK will be inspected for acceptance by the OWNER promptly upon receipt of notice from the CONTRACTOR that the WORK is complete and ready for inspection.

ARTICLE 6. DISPUTES PERTAINING TO PAYMENT FOR WORK. Any disputes which may arise respecting the value of any WORK done, or any WORK omitted, or of any ADDITIONAL WORK which CONTRACTOR may be required to perform, or respecting any other elements involved in this CONTRACT, will be decided by the Director of the Division of Oil, Gas & Mining, acting as the OWNER.

ARTICLE 7. TERMINATION OF CONTRACT

- a. If the CONTRACTOR is adjudged bankrupt or if the CONTRACTOR makes a general assignment for the benefit of CONTRACTOR'S creditors or if a receiver is appointed on account of CONTRACTOR'S insolvency, or if CONTRACTOR or any of his/her Subcontractors violates any of the provisions of this CONTRACT, or if the CONTRACTOR does not perform the WORK according to the Specifications, the OWNER may serve written notice upon CONTRACTOR of its intention to terminate the CONTRACT; and unless within ten (10) days after the serving of the notice, the violation ceases, the OWNER then may take over the WORK and at the expense of the CONTRACTOR, complete it by contract or by any other method it may deem advisable. The CONTRACTOR will be liable to the OWNER for any excess cost incurred by the OWNER and the OWNER may, without liability for so doing, take possession of and utilize in completing the WORK, such materials, appliances, paint, and any other property belonging to the CONTRACTOR as may be on the site of the WORK.
- b. OWNER may terminate this Agreement upon thirty days written notice to CONTRACTOR in the event the U.S.

Contract

Vernon Sheeprocks Project

Department of the Interior fails to grant to OWNER sufficient funds to meet its obligations under this Agreement. In such event, CONTRACTOR will be entitled to receive just and equitable compensation for any satisfactory WORK completed up to the time of termination.

ARTICLE 8. OWNER'S RIGHT TO WITHHOLD CERTAIN AMOUNT AND MAKE APPLICATION THEREOF. The OWNER may withhold from payment to the CONTRACTOR an amount or amounts as, in the OWNER'S judgment, may be necessary to pay just claims against the CONTRACTOR or any Subcontractor for labor and services rendered and materials furnished in and about the WORK. The OWNER in its discretion may apply the withheld amounts on the payment of such claims. In so doing the OWNER will be deemed the agent of the CONTRACTOR and payments so made by the OWNER will be considered as a payment made under the CONTRACT by the OWNER to the CONTRACTOR and the OWNER will not be liable to the CONTRACTOR for any such payments made in good faith. Such payments may be made without prior determination of the claim or claims.

ARTICLE 9. INDEPENDENT CONTRACTOR. The CONTRACTOR will be considered an independent contractor, and, as such, has no authorization, expressed or implied, to bind the State of Utah or the OWNER to any agreement, settlement, liability or understanding whatsoever, nor to perform any acts as agent for the State of Utah, except as herein expressly set forth. The compensation provided for herein will be the total compensation payable hereunder by the State of Utah or the OWNER.

ARTICLE 10. LIABILITY AND INDEMNIFICATION. It is agreed that the CONTRACTOR will at all times protect and indemnify and save harmless, the State of Utah and all institutions, agencies, departments, authorities and instrumentalities of the State of Utah and any member of their governing bodies or of their boards or commissions or any of their elected or appointed officers or any of their employees or authorized volunteers, or the private landowners who have consented to reclamation construction and/or have consented to allow ingress or egress to a reclamation site, as described in the general conditions of the project specifications which are included herein by reference, from any and all claims, damages of every kind and nature made, rendered or incurred by or in behalf of any person or corporation whatsoever, including the parties hereto and their employees that may arise, occur or grow out of any acts, actions, work or other activity done by the CONTRACTOR in the performance and execution of this CONTRACT.

ARTICLE 11. SUBCONTRACTOR. No part of this CONTRACT may be sublet by the CONTRACTOR without the prior written approval of the OWNER. The CONTRACTOR and the OWNER for themselves, their heirs, successors, executors, and administrators, hereby agree to the full performance of the covenants herein contained.

ARTICLE 12. LIQUIDATED DAMAGES. In the event the CONTRACTOR fails to complete the WORK within the time agreed upon in CONTRACTOR's schedule as set forth in Article 2, or within such additional time as may have been allowed by the OWNER, there will be deducted from any moneys due or that may become due the CONTRACTOR the sum of ~~\$781.00~~ per day for each and every calendar day beyond the agreed or extended completion day that the WORK remains uncompleted. Such sum is fixed and agreed upon by the OWNER and the CONTRACTOR as liquidated damages due the OWNER by reason of the inconvenience and added costs of administration, engineering and supervision resulting from the CONTRACTOR's default, and not as a penalty.

Permitting the CONTRACTOR to continue and finish the WORK or any part of it after the time fixed for its completion, or after the date to which the time for completion may have been extended, in no way operates as a waiver on the part of the OWNER of any of OWNER'S rights under the CONTRACT.

ARTICLE 13. DEFAULT: In the event of default by the CONTRACTOR, termination may be executed as described by the Termination for Default Clause of the DIVISION OF OIL, GAS AND MINING GENERAL CONDITIONS FOR ABANDONED MINE RECLAMATION PROJECTS.

ARTICLE 14. NONAPPROPRIATION OF FUNDS: Financial obligations of the OWNER payable after the current fiscal year are contingent upon funds for the purpose being appropriated, budgeted or otherwise made available. If funds are not appropriated or otherwise available to continue the payment, this contract may be terminated without penalty by giving thirty (30) days written notice.

ARTICLE 15. CERTIFICATIONS: PART A: Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – Lower Tier Covered Transactions. 1) The CONTRACTOR certifies that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction (contract), by any Federal department or agency. 2) Where the CONTRACTOR is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal. PART B: Certification Regarding Lobbying. The undersigned certifies, to the best of his or her knowledge and belief, that: 1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress and officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement. 2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an

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officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

The CONTRACTOR was selected for this contract in accordance with the State of Utah, Division of Purchasing's Regulations for the Procurement of Construction and Professional Services.

DOGM Construction Terms and Conditions (revised 09/24/03)

End Attachment C

ATTACHMENT D
COST SCHEDULE

The Cost Schedule will be generated from the Bid Schedule following the award of the CONTRACT.

Performance Bond

(Title 63, Chapter 56, U. C. A. 1953, as Amended)

KNOW ALL MEN BY THESE PRESENTS:

That _____, hereinafter referred to as the "Principal," and _____, a corporation organized and existing under the laws of the State of _____, with its principal office in the City of _____, hereinafter referred to as the "Surety," are held and firmly bound unto _____, hereinafter referred to as the "Obligee," in the amount of _____ DOLLARS (\$_____) for the payment whereof, the said Principal and Surety bind themselves and their heirs, administrators, executors, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has entered into a certain written Contract with the Obligee, dated the _____ day of _____, 20____, which Contract is hereby referred to and made a part hereof as fully and to the same extent as if copied at length herein.

NOW, THEREFORE, the condition of this obligation is such that if the said Principal shall faithfully perform the Contract in accordance with the Plans, Specifications and conditions thereof, then this obligation shall be void; otherwise it shall remain in full force and effect.

PROVIDED, HOWEVER, that this Bond is executed pursuant to the provisions of Title 63, Chapter 56, Utah Code Annotated, 1953, as Amended, and all liabilities on this Bond shall be determined in accordance with said provisions to the same extent as if it were copied at length herein.

IN WITNESS WHEREOF, the said Principal and Surety have signed and sealed this instrument this _____ day of _____, 20____.

WITNESS OR ATTESTATION:

WITNESS:

Principal (Seal)

By (Seal)

Surety

By

STATE OF UTAH)
) ss
COUNTY OF SALT LAKE)

_____, being first duly sworn on oath, deposes and says that he/she is the Attorney-in-fact of the _____ and that he/she is duly authorized to execute and deliver the foregoing obligation that said company is authorized to execute the same, and has complied in all respects with the laws of Utah in reference to becoming sole surety upon bonds, undertakings and obligations.

Subscribed and sworn to before me this _____ day of _____, 20____.

NOTARY PUBLIC
My commission expires: _____

APPROVED AS TO FORM: ATTORNEY GENERAL'S OFFICE

Payment Bond

(Title 63, Chapter 56, U. C. A. 1953, as Amended)

KNOW ALL MEN BY THESE PRESENTS:

That _____, hereinafter referred to as the "Principal," and _____, a corporation organized and existing under the laws of the State of _____, with its principal office in the City of _____, hereinafter referred to as the "Surety," are held and firmly bound unto _____, hereinafter referred to as the "Obligee," in the amount of _____ DOLLARS (\$_____) for the payment whereof, the said Principal and surety bind themselves and their heirs, administrators, executors, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has entered into a certain written Contract with the Obligee, dated the _____ day of _____, 20_____, which Contract is hereby referred to and made a part hereof as fully and to the same extent as if copied at length herein.

NOW, THEREFORE, the condition of this obligation is such that if the said Principal shall pay all claimants supplying labor or materials to him/her or his/her subcontractors in the prosecution of the work provided for in said Contract, then, this obligation shall be void; otherwise it shall remain in full force and effect.

PROVIDED, HOWEVER, that this bond is executed pursuant to the provisions of Title 63, Chapter 56, Utah Code Annotated, 1953, as amended and all liabilities on this bond to all such claimants shall be determined in accordance with said provisions to the same extent as if it were copies at length herein.

IN WITNESS WHEREOF, the said Principal and Surety have signed and sealed this instrument this _____ day of _____, 20_____.

(Seal)

WITNESS OR ATTESTATION:

(Seal)

WITNESS:

Principal

By

Surety

By

STATE OF UTAH)
) ss
COUNTY OF SALT LAKE)

_____, being first duly sworn on oath, deposes and says that he/she is the Attorney-in-fact of the _____ and that he/she is duly authorized to execute and deliver the foregoing obligation that said company is authorized to execute the same, and has complied in all respects with the laws of Utah in reference to becoming sole surety upon bonds, undertakings and obligations.

Subscribed and sworn to before me this
_____ day of _____, 20_____.

NOTARY PUBLIC

My commission expires: _____

APPROVED AS TO FORM: ATTORNEY GENERAL'S OFFICE

STATE OF UTAH CONTRACT AMENDMENT

AMENDMENT #01 to **CONTRACT # 04-0000**

TO BE ATTACHED TO AND MADE A PART OF the above numbered contract by and between the State of Utah, Division Of Oil, Gas And Mining, referred to as STATE and, _____, referred to as CONTRACTOR.

Project Name: Vernon Sheeprocks Project Number: AMR/045/910

THE PARTIES AGREE TO AMEND THE CONTRACT AS FOLLOWS:

- | | |
|---|--|
| <p>1. Contract period:
(original starting date)</p> <p>(current ending date)</p> <p>new ending date</p> | <p>2. Contract amount:
(current contract amount)</p> <p>(amendment amount)</p> <p>new contract amount
(add current amount to amendment amount)</p> |
|---|--|

3. Change Details:

Fund	Agency	Org	Approp. Unit	Activity (Mine)	Grant Category	Project or Job
100	560	2881	REG			

ITEM NO.	DESCRIPTION OF CHANGES IN QUANTITIES, UNIT PRICES, SCHEDULE, ETC.	INCREASE (DECREASE)
1.	DESCRIPTION OF CHANGES IN QUANTITIES, UNIT PRICES, SCHEDULE.	\$***
2.	DESCRIPTION OF CHANGES IN QUANTITIES, UNIT PRICES, SCHEDULE.	\$***
3.	DESCRIPTION OF CHANGES IN QUANTITIES, UNIT PRICES, SCHEDULE	\$***
4.	SUBTOTAL	\$00.00
5.	BONDS & INSURANCE	\$00.00
6.	TOTAL AMOUNT OF CHANGE ORDER	\$00.00

4. Effective Date of Amendment:

All other conditions and terms in the original contract remain the same.

IN WITNESS WHEREOF, the parties sign and cause the amendment to be executed.

Approved by	Contract Rep: _____	Date: _____	
Approved by	AMR Admin: _____	Date: _____	
Accepted by	Contractor: _____	Date: _____	
Approved by	DOGM Budget Off: _____	Date: _____	
Approved by	DOGM Director _____	Date: _____	
Approved by	Div'n Purchasing: _____	Date: _____	
Approved by	Div'n of Finance: _____	Date: _____	

Certificate Of Substantial Completion

UTAH DIVISION OF OIL, GAS AND MINING

PROJECT VERNON SHEEPROCKS

PROJECT NO. AMR/045/910

CONTRACT NO. 04-0000

The WORK performed under the subject CONTRACT has been reviewed on this date and found to be substantially completed.

DEFINITION OF SUBSTANTIAL COMPLETION

The date of substantial completion of a project or specified area of a project is the date when the construction is sufficiently completed in accordance with the Contract Documents, as modified by any change orders agreed to by the parties, so that the OWNER can occupy the project or specified area of the project for the use for which it was intended.

A list of items to be completed or corrected, prepared by the Division of Oil, Gas & Mining and verified by the OWNER, is appended hereto. This list may not be exhaustive, and the failure to include an item on it does not alter the responsibility of the CONTRACTOR to complete all the WORK in accordance with the Contract Documents, including authorized changes thereof.

Division of Oil, Gas & Mining

CONTRACT REPRESENTATIVE DATE

The CONTRACTOR will complete or correct the work on the list of items appended hereto within ____ days from the above date of issuance of this Certificate.

CONTRACTOR

AUTHORIZED REPRESENTATIVE DATE

The OWNER accepts the project or specified area of the project as substantially complete and will assume full possession of the project or specified area of the project at _____ (time) on _____ (date).

Division of Oil, Gas & Mining
OWNER

CONTRACT REPRESENTATIVE DATE

ADMINISTRATOR, AMR DATE

RESPONSIBILITIES AND/OR EXCEPTIONS:

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DIVISION OF FACILITIES CONSTRUCTION AND MANAGEMENT

Certificate Of Final Acceptance

UTAH DIVISION OF OIL, GAS AND MINING

PROJECT VERNON SHEEPROCKS

PROJECT NO. AMR/045/910

CONTRACT NO. 04-0000

The WORK performed under the subject CONTRACT has been reviewed on this date and found to be completed.

DEFINITION OF FINAL ACCEPTANCE

The date of final acceptance of a project is the date when the construction is completed in accordance with the Contract Documents, as modified by any change orders agreed to by the parties, so that the OWNER can occupy the project for the use for which it was intended.

Items listed on the Certificate of Substantial Completion, as prepared by the Division of Oil, Gas & Mining, have been completed or corrected and verified by the OWNER as having been completed or corrected.

Division of Oil, Gas & Mining

OWNER

INSPECTOR

DATE

CONTRACT REPRESENTATIVE

DATE

CONTRACTOR

AUTHORIZED REPRESENTATIVE

DATE

The OWNER accepts the project as complete and will assume full possession of the project or specified area of the project at _____ pm (time) on _____, 20____ (date).

Division of Oil, Gas & Mining

OWNER

ADMINISTRATOR, AMRP

DATE

**General Conditions
For
Abandoned Mine Reclamation Projects**

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General Conditions

DIVISION OF OIL, GAS AND MINING GENERAL CONDITIONS FOR ABANDONED MINE RECLAMATION PROJECTS

1. Definitions:

- A. The CONTRACT documents consist of the agreement, the general conditions of the CONTRACT, the drawings and specifications, including all modifications thereof incorporated in the documents before their execution. These form the CONTRACT.
- B. The OWNER and the CONTRACTOR or pronouns used in place thereof, are those mentioned as such in the agreement. They are treated throughout the CONTRACT documents as if each were in the singular number.
- C. The term "Subcontractor," as employed herein, includes anyone having a direct CONTRACT with anyone except the OWNER to provide material and/or labor under this CONTRACT, and it includes one who furnishes material worked to a special design according to the plans and/or specifications of this WORK, but does not include one who merely furnishes material not so worked.
- D. The word "state," or pronoun used in place thereof, is to designate the State of Utah, as represented by the Division of Oil, Gas & Mining.
- E. The word "OWNER," or pronoun used in place thereof, is to designate the State of Utah, as represented by the Division of Oil, Gas & Mining.
- F. The term "WORK" of the CONTRACTOR or subcontractor includes labor or materials or both, and the SCOPE OF WORK.
- G. The term "site" shall be used to refer to all areas where the WORK is to be performed.
- H. The term "engineer" shall be used to refer to a consultant representing the OWNER or a designated representative of the OWNER.
- I. The applicable laws and regulations of the State of Utah shall govern the execution of the WORK embodied in the contract documents.

2. Correlation and Intent of Documents:

The CONTRACT documents are complementary, and what is called for by any one shall be as binding as if called for by all. The intention of the documents is to include all labor and materials, equipment, and transportation necessary for the proper and complete execution of the WORK, and equal in quality and workmanship to the highest standards. The CONTRACTOR is to abide by and comply with the true intent and meaning of all drawings and specifications taken as a whole and is not to avail himself to the detriment of the WORK, of any manifestly unintentional error or omission, should any exist. All minor details of WORK which are not shown on the plans, as well as such items as are not specifically mentioned in the specifications but are obviously necessary for the proper completion of the WORK, shall be considered as incidental and as being part of the WORK.

3. Copies Furnished:

Unless otherwise provided in the CONTRACT documents, the OWNER will furnish the CONTRACTOR, free of charge to the CONTRACTOR, copies of drawings and specifications, reasonably necessary for the execution of the WORK.

4. Dimensions:

Where no figures or memoranda are given, the drawings shall be accurately followed according to their scale, but figures or memoranda are to be preferred to the scale, in all cases of difference, and the larger scale details shall take preference over those of smaller scale.

5. Detail Drawings and Instructions:

The OWNER shall furnish, with reasonable promptness, additional instructions, by means of drawings or otherwise, necessary for the proper execution of the WORK. All such drawings and instructions shall be consistent with the CONTRACT documents, true developments thereof, and reasonably inferable therefrom. The WORK shall be executed in conformity with the drawings and instructions. Any WORK performed by the CONTRACTOR in advance of these drawings and instructions shall be entirely at the CONTRACTOR's risk.

6. Drawings and Specifications on the Work:

The CONTRACTOR shall keep at the jobsite one copy of all drawings and specifications on the WORK in good order, available to the OWNER and their representatives.

7. Ownership of Drawings:

All copies of drawings and specifications furnished the CONTRACTOR by the OWNER are the property of the OWNER. They are not to be used by the CONTRACTOR on other work, and are to be returned to the OWNER, upon request, at the completion of the WORK.

8. Shop Drawings/As Built Drawings:

The CONTRACTOR shall submit to the OWNER, with such promptness as to cause no delay in his/her WORK or in that of any other CONTRACTOR, six copies of all shop/as built drawings or setting drawings and schedules required for the WORK of the various trades and the OWNER shall pass upon them with reasonable The CONTRACTOR shall submit to the OWNER, with such promptness, making desired corrections. Said corrections shall pertain to conformance with the basic design concepts embodied in the CONTRACT documents. The CONTRACTOR shall make any corrections required by the OWNER. The OWNER shall distribute the corrected drawings as follows: Two drawings to the OWNER; three drawings back to the general CONTRACTOR; and one drawing to the project inspector (if one is assigned to the job). The OWNER's approval of such drawings or schedules shall not relieve the CONTRACTOR from responsibility for deviations from drawings or specifications, unless he/she has in writing called the OWNER's attention to such deviations at the time of submission, and has received the OWNER's written approval of such deviation; nor shall it relieve him/her from responsibility for errors of any sort in shop/as built drawings or schedules.

9. Samples:

The CONTRACTOR shall furnish to the OWNER for approval, all samples as directed. The WORK shall be in accordance with approved samples.

10. Materials, Appliances, Employees:

Unless otherwise stipulated, the CONTRACTOR shall provide and pay for all materials, labor, water, tools, equipment, light, power, transportation, and other facilities and services necessary for the execution and completion of the WORK.

Unless otherwise specified, all materials shall be new, and both workmanship and materials shall be of high quality. The CONTRACTOR shall, if required, furnish satisfactory evidence as to the kind and quality of materials.

The CONTRACTOR shall at all times enforce strict discipline and order among his/her employees, and shall not employ on the WORK any unfit person or anyone not skilled in the work assigned to him/her.

11. Royalties and Patents:

The CONTRACTOR shall pay all royalties and license fees. He/she shall defend all suits or claims for infringement of any patent rights and shall save the OWNER harmless from loss on account thereof.

12. Surveys, Permits and Regulations:

The OWNER shall furnish surveys necessary to establish site boundaries and existing topography. The OWNER shall provide those surveys necessary for laying out the WORK.

The CONTRACTOR shall give all notices and comply with all applicable laws, ordinances, rules and regulations bearing on the conduct of the WORK as drawn and specified. If the CONTRACTOR observes that the drawings and specifications are at variance therewith, he/she shall promptly notify the OWNER in writing, and any necessary changes shall be adjusted as provided in the contract for changes in the WORK. If the CONTRACTOR performs any work knowing it to be contrary to such laws, ordinances, rules and regulations and without such notice to the OWNER, he/she shall bear all costs arising therefrom.

Inasmuch as the WORK under this contract will be performed for the State of Utah, it will not be necessary to take out local building permits, electrical permits and plumbing permits, nor will it be necessary to pay fees for inspections pertaining thereto; however, it will be necessary to obtain a permit from the city, county, and or Department of Transportation having jurisdiction whenever the WORK involves their property. The CONTRACTOR shall cooperate as necessary with these jurisdictions to comply with all their requirements, which may include a bond and permit fee.

Fees for connection to utilities such as water and power must be borne by the CONTRACTOR.

13. Protection of Work and Property:

The CONTRACTOR shall continuously maintain adequate protection of all his/her WORK from damage and shall protect the OWNER's property from injury or loss arising in connection with this CONTRACT. CONTRACTOR shall make good any such damage, injury, or loss, except such as may be directly due to errors in the CONTRACT documents or caused by agents or employees of the OWNER. CONTRACTOR shall adequately protect adjacent property as provided by law and the CONTRACT documents.

The CONTRACTOR shall take all necessary precautions for the safety of employees on the WORK and shall comply with all applicable provisions of federal, state and municipal safety laws and building codes to prevent accidents or injury to persons on, about, or adjacent to the premises where the WORK is being performed. CONTRACTOR shall erect and properly maintain at all times, as required by the conditions and progress of the WORK, all necessary safeguards for the protection of workers and the public and shall post danger signs warning against hazardous conditions.

14. Inspection of Work:

The OWNER and the representatives thereof and authorized

federal government inspectors shall at all times have access to the WORK, and the CONTRACTOR shall provide proper facilities for such access and for inspection.

If the specifications or the OWNER requires any work to be specially tested or approved, the CONTRACTOR shall give the OWNER timely notice of its readiness for inspection. Inspections shall be promptly made and, where practicable, at the source of supply. If any WORK should be covered up without approval or consent of the OWNER, it must, if required by the OWNER, be uncovered for examination at the CONTRACTOR's expense.

15. Superintendence and Supervision:

The CONTRACTOR shall keep on the WORK, during its progress, a competent superintendent and any necessary assistants, all satisfactory to the OWNER. The superintendent shall represent the CONTRACTOR in his/her absence, and all directions given to superintendent shall be as binding as if given to the CONTRACTOR.

The CONTRACTOR shall give efficient supervision to the WORK, using his/her best skill and attention. CONTRACTOR shall carefully study and compare all drawings, specifications and other instructions, and shall at once report to the OWNER any error, inconsistency, or omission which CONTRACTOR may discover, but shall not be held responsible for their existence or discovery.

16. Changes:

A. Change Order. The OWNER, at any time, unilaterally and without notice to sureties, in writing designated or indicated to be a change order, may order:

- (1) Changes in the WORK within the scope of this CONTRACT;
- (2) Changes in the time for performance of this CONTRACT that do not alter the scope of WORK of this CONTRACT; and/or
- (3) Changes necessary to continue the WORK or to accommodate the OWNER with essential services required to complete the WORK as normally intended in accordance with specifications.

B. Adjustments of Price or Time for Performance. If any change order increases or decreases the CONTRACTOR's cost of, or the time required for, performance of any part of the WORK under this CONTRACT, whether changed or not changed by any such change order, an equitable adjustment shall be made in the contract price or completion date, or both, and this contract shall be modified in writing accordingly. Any adjustment in contract price made pursuant to this clause shall be determined in accordance with the Price Adjustment Clause of this contract.

Failure of the parties to agree to an adjustment shall not excuse the CONTRACTOR from proceeding with this contract as changed, provided that the OWNER promptly and duly makes such provisional adjustments in payments or time for performance as the OWNER deems to be reasonable.

C. Written Certification. No change order shall be authorized without a written certification, signed by an official of the OWNER responsible for monitoring and reporting the status of the costs of the total project or the contract budget, stating that funds are available therefor.

Where the OWNER has assigned an engineer to the project, the CONTRACTOR shall submit such proposals

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to the engineer in sufficient number that one copy may be transmitted to the OWNER, one to the project inspector, and one retained by the engineer. Upon acceptance of the proposal by all parties, a written change order will be issued.

Whenever a request for a change order proposal is received by the CONTRACTOR, he/she shall indicate thereon his/her proposed price to be added or deducted from the CONTRACT sum due to the change, together with his/her request for any adjustment in time of final completion of the entire CONTRACT.

It is further agreed that all time extensions to the completion date of the CONTRACT and any costs or changes in the CONTRACT price from any cause whatsoever that may be incurred as a result of the change order(s) are included in the change order as authorized.

17. Claims Based on OWNER's Actions or Omissions:

Notice of Claim. If any action or omission on the part of the OWNER, requiring performance changes within the scope of the CONTRACT and which are not covered by other clauses of this CONTRACT, constitutes the basis for a claim by the CONTRACTOR for additional compensation, damages, or an extension of time for completion, the CONTRACTOR shall continue the performance of the CONTRACT in compliance with the directions or orders of the OWNER, but by so doing, the CONTRACTOR shall not be deemed to have prejudiced any claim for additional compensation, damages, or an extension of time for completion; provided:

- (1) The CONTRACTOR shall have given written notice to the OWNER:
 - (a) Prior to the commencement of the WORK involved, if at that time the CONTRACTOR knows of the occurrence of such action or omission; or
 - (b) Within thirty (30) days after the CONTRACTOR knows of the occurrence of such action or omission, if the CONTRACTOR did not have such knowledge prior to the commencement of the WORK; or
 - (c) Such further time as may be allowed by the OWNER in writing.

This notice shall state that the CONTRACTOR regards the act or omission as a reason which may entitle the CONTRACTOR to additional compensation, damages, or an extension of time. The OWNER, upon receipt of such notice, may rescind such action, remedy such omission, or take such other steps as may be deemed advisable in the discretion of the OWNER.

- (2) The notice required by Subparagraph (A)(1) of this paragraph describes as clearly as practicable at the time the reasons why the CONTRACTOR believes that additional compensation, damages, or an extension of time may be remedies to which the CONTRACTOR is entitled; and
- (3) The CONTRACTOR maintains and, upon request, makes available to the OWNER within a reasonable time, detailed records to the extent practicable, of the claimed additional costs or basis for an extension of time in connection with such changes.

18. Deductions for Uncorrected Work:

If the OWNER deems it inexpedient to correct WORK damaged or done not in accordance with the CONTRACT, an equitable deduction from the CONTRACT price shall be made therefor.

19. Delays and Extension of Time:

If the CONTRACTOR is significantly delayed at any time in the progress of the WORK by any act or neglect of the OWNER, or of any employee of either, or by any separate CONTRACTOR employed by the OWNER, or by significant changes ordered in the WORK or by strikes, lockouts, fire, unavoidable casualties or any causes beyond the CONTRACTOR's control, or by any cause which the OWNER shall decide justifies the delay, then the time of completion shall be extended for such reasonable time as the OWNER may decide. No action shall lie against the OWNER for damages or other claims due to losses attributable to hindrances or delays from any cause whatsoever, including acts and omissions of the OWNER or its agents; however, the CONTRACTOR may receive an extension of time in which to complete the WORK under this CONTRACT as provided above. The right to apply for such an extension of time shall be the exclusive remedy available to the CONTRACTOR or any Subcontractor as against the OWNER for such loss.

Any request for extension of time shall be made to the OWNER in writing within seven (7) days from the time of occurrence of cause for delay. In case of a continuing cause of delay, only one claim is necessary.

20. Correction of WORK Before Final Payment:

The CONTRACTOR shall promptly remove from the premises all WORK condemned by the OWNER as failing to conform to the CONTRACT, whether incorporated or not, and the CONTRACTOR shall promptly replace and reexecute his/her own WORK in accordance with the CONTRACT and without expense to the State of Utah and shall bear the expense of making good all WORK of other CONTRACTORS destroyed or damaged by such removal or replacement.

If the CONTRACTOR does not remove such condemned WORK within a reasonable time, fixed by written notice, the OWNER may have the materials removed and stored at the expense of the CONTRACTOR.

21. Correction of WORK After Final Payment:

Neither the final certificate of payment nor any provision in the CONTRACT documents nor partial or entire occupancy of the premises by the OWNER shall constitute an acceptance of WORK not done in accordance with the CONTRACT documents or relieve the CONTRACTOR of liability in respect to any express warranties or responsibility for faulty materials or workmanship. The CONTRACTOR shall remedy any defects in the WORK and pay for any damage to other WORK resulting therefrom which shall appear within a period of one year from the date of substantial completion of the WORK, unless a longer period is specified. The OWNER will give notice of observed defects with reasonable promptness.

22. Termination for Default Clause:

A. The OWNER may, subject to the provisions of Paragraph (C) below, by written notice of default to the CONTRACTOR, terminate the whole or any part of this CONTRACT in any one of the following circumstances:

- (1) If the CONTRACTOR fails to perform this CONTRACT within the time specified herein or any extension thereof; or
- (2) If the CONTRACTOR fails to perform any of the other provisions of this CONTRACT, or so fails to make progress as to endanger performance of this

CONTRACT in accordance with its terms, and in either of these two circumstances does not cure such failure within a period of five (5) days (or such longer period as the OWNER may authorize in writing) after receipt of notice from the OWNER specifying such failure.

- B. In the event the OWNER terminates this CONTRACT in whole or in part as provided in Paragraph (A) of this clause, the OWNER may procure, upon such terms and in such manner as the OWNER may deem appropriate, supplies or services similar to those so terminated, and the CONTRACTOR shall be liable to the OWNER for any excess costs for such similar supplies or services; provided that the CONTRACTOR shall continue the performance of this CONTRACT to the extent not terminated under the provisions of this clause.
- C. Except with respect to defaults of Subcontractors, the CONTRACTOR shall not be liable for any excess costs if the failure to perform the CONTRACT arises out of causes beyond the control and without the fault or negligence of the CONTRACTOR. Such causes may include, but are not restricted to, acts of God or of the public enemy, acts of the state or federal government in either their sovereign or contractual capacity, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and unusually severe weather; but in every case the failure to perform must be beyond the control and without the fault or negligence of the CONTRACTOR. If the failure to perform is caused by the default of a Subcontractor, and if such default arises out of causes beyond the control of both the CONTRACTOR and the Subcontractor, and without the fault or negligence of either of them, the CONTRACTOR shall not be liable for any excess costs for failure to perform unless the supplies or services to be furnished by the Subcontractor were obtainable from other sources in sufficient time to permit the CONTRACTOR to meet the required delivery or completion schedule.

If this CONTRACT is terminated as provided in Paragraph (A) of this clause, the OWNER, in addition to any other rights provided in this clause, may take over the WORK and prosecute the same to completion, by contract or otherwise, and may take possession of, and utilize in completing the WORK, such materials, equipment and plants as may be on the site of the WORK and necessary therefor. The OWNER may require the CONTRACTOR to transfer title and deliver to the OWNER, in the manner and to the extent directed by the OWNER:

- (1) Any completed portion of the WORK; and
- (2) Any partially completed portion of the WORK and any parts, tools, dies, jigs, fixtures, plans, drawings, information, and CONTRACT rights (hereinafter called "construction materials") as the CONTRACTOR has specifically produced or specifically acquired for the performance of such part of this CONTRACT as has been terminated; and the CONTRACTOR shall, upon direction of the OWNER, protect and preserve property in the possession of the CONTRACTOR in which the OWNER has an interest.

Payment for completed WORK accepted by the OWNER shall be at the contract price. Payment for construction materials delivered to and accepted by the OWNER and for the protection and preservation of property shall be in an amount agreed upon by the CONTRACTOR and OWNER. The OWNER may withhold from amounts otherwise due the

CONTRACTOR for such completed WORK or construction materials such sum as the OWNER determines to be necessary to protect the OWNER against loss because of outstanding liens or claims of former lien holders.

- E. If, after notice of termination of the contract under the provisions of this clause, it is determined for any reason that the CONTRACTOR was not in default under the provisions of this clause, or that the default was excusable under the provisions of this clause, the rights and obligations of the parties shall, if the CONTRACT contains a clause providing for termination for convenience of the OWNER, be the same as if the notice of termination had been issued pursuant to such clause. If, after notice of termination of this CONTRACT under the provisions of this clause, it is determined for any reason that the CONTRACTOR was not in default under the provisions of the clause, and if this CONTRACT does not contain a clause providing for termination for convenience of the OWNER, the CONTRACT shall be equitably adjusted to compensate for such termination and the contract modified accordingly.
- F. The rights and remedies of the OWNER provided in this clause shall not be exclusive and are in addition to any other rights and remedies provided by law or under this CONTRACT.

23. Application for Payments:

The CONTRACTOR shall submit an application monthly for progress payments to the OWNER for approval. The CONTRACT REPRESENTATIVE shall approve the payment, and obtain the signature of the inspector for payment. Receipts or other vouchers showing payments for the materials and labor, including payments to Subcontractors, for the preceding month shall be submitted with the application if required.

If payments are made on valuation of WORK done, such application shall be submitted at least ten days before each payment falls due. The CONTRACTOR shall, before the first application, submit to the OWNER, a schedule of values for the various parts of the WORK, including quantities, aggregating the total sum of the CONTRACT, divided so as to facilitate payments as outlined above and made out in such form as the OWNER and the CONTRACTOR may agree upon, and supported by such evidence as to its correctness as the OWNER may direct. This schedule, when approved by the OWNER, shall be used as a basis for payment, unless it be found to be in error. In applying for payments, the CONTRACTOR shall submit in duplicate a statement based upon this schedule and itemized in such form and supported by such evidence as the OWNER may direct, showing CONTRACTOR's right to the payment claimed.

In making payments to the CONTRACTOR for completed WORK or for materials stored on site, it is understood between the OWNER and the CONTRACTOR that proportionate parts of such payments as are made to the CONTRACTOR for completed WORK of Subcontractors and/or suppliers will be transmitted to such Subcontractors and/or suppliers in the form of payments for completed WORK within ten (10) days after receipt of such payments by the CONTRACTOR. The submittal of an application by a CONTRACTOR for a progress payment shall constitute prima facie representation by that CONTRACTOR that all previous proportionate payments made by the OWNER to the CONTRACTOR for completed WORK of Subcontractors and/or suppliers have been transmitted to all appropriate Subcontractors and/or suppliers for their completed WORK within ten (10) days after receipt of respective payments.

For projects in excess of \$100,000, the CONTRACTOR may

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request retainage to be paid to an escrow agent for interest to accrue to the CONTRACTOR's benefit. See OWNER for forms and more information.

24. OWNER's Right to Withhold Certain Amounts and Make Application Thereof:

The OWNER may withhold from payment to the CONTRACTOR such an amount or amounts as, in its judgment, may be necessary to pay just claims against the CONTRACTOR or any Subcontractor for labor and services rendered and materials furnished in and about the WORK. The OWNER may apply such withheld amounts on the payment of such claims in its discretion. In so doing, the OWNER shall be deemed the agent of the CONTRACTOR and payments so made by the OWNER shall be considered as a payment made under the CONTRACT by the OWNER to the CONTRACTOR and the OWNER shall not be liable to the CONTRACTOR for any such payments in good faith made. Such payments may be made without prior determination of the claim or claims.

Neither the final certificate of payment nor any provision in the CONTRACT documents, nor partial or entire occupancy of the premises by the OWNER shall constitute an acceptance of WORK not done in accordance with the contract documents or relieve the CONTRACTOR of liability in respect to any express warranties or responsibility for faulty materials or workmanship. The CONTRACTOR shall remedy any defects in the WORK and pay for any damage to other WORK resulting therefrom, which shall appear within a period of one year from the date of the certificate of substantial completion of the WORK, unless a longer period is specified. The OWNER will give notice of observed defects with reasonable promptness.

25. Liability Insurance:

To protect against liability, loss, or expense arising from damage to property or injury or death of any person or persons incurred in any way out of, in connection with or resulting from the WORK provided hereunder, CONTRACTOR shall obtain at its own expense from reliable insurance companies acceptable to OWNER's Risk Manager and authorized to do business in the state in which the work is to be performed, and shall maintain in full force during the entire period of this contract the following or equivalent insurance:

- (a) Workers' Compensation Insurance and Employers' Liability Insurance providing statutory benefits.
- (b) Comprehensive General Liability Insurance, including premises-operations; explosion; collapse and underground hazards; products and completed operation hazards; blanket contractual; broad form property damage; independent CONTRACTORS; and personal injury including employees with limits not less than \$1,000,000 combined single limit per occurrence.
- (c) Comprehensive Automobile Liability Insurance including owned, hired and non-owned automobiles with limits not less than \$1,000,000 combined single limit per occurrence.
- (d) CONTRACTOR using its own aircraft, or employing aircraft in connection with the WORK performed under this contract shall maintain Bodily Injury and Property Damage Liability coverage with a combined single limit of not less than \$1,000,000 per occurrence.

Any policy required by this section may be arranged under a single policy for the full limit required, or by a combination of underlying policies with the balance provided by an Excess or Umbrella Liability policy.

OWNER may accept equivalent self-insured programs in lieu of insurance upon specific approval of OWNER's Risk Manager.

Irrespective of the requirements as to insurance to be carried by CONTRACTOR as provided herein, insolvency, bankruptcy or failure of any insurance company to pay all claims accruing, shall not be held to relieve CONTRACTOR of any obligations hereunder.

The State of Utah and all Institutions, Agencies, Departments, Authorities and Instrumentalities of the State of Utah, and while acting within the scope of their duties as such: any member of their governing bodies, or of their boards, commissions, or advisory committees, or any of their elected or appointed officials, or any of their employees or authorized volunteers shall be listed as additional insureds under each of the policies required to be purchased and maintained by CONTRACTOR, with the exception of Workers' Compensation. Each policy so required shall be primary to the aforesaid additional insureds listed above, and shall apply to the full policy limits prior to any other insurance coverage which the aforesaid additional insureds may have in the event of claim under any of said policies, but, only with respect to WORK being performed by CONTRACTOR on behalf of the aforesaid additional insureds.

Before the WORK is commenced, certificates evidencing that satisfactory coverage of the type and limits set forth above are in effect, shall be furnished to the OWNER. Such insurance policies shall contain provisions that no alteration, cancellation or material change therein shall become effective except upon thirty (30) days prior written notice to OWNER's Risk Manager as evidenced by return of registered or certified letter sent to OWNER's Risk Manager.

Any and all deductibles in the above described policies shall be assumed by, for the account of, and at sole risk of CONTRACTOR.

26. Property Insurance:

OWNER shall provide "all risk" property insurance to protect OWNER, as well as all CONTRACTORS, Subcontractors and sub-subcontractors with respect to WORK performed hereunder at OWNER's own cost and expense, according to the policy forms currently in force with insurance carriers selected by OWNER's Risk Manager. OWNER's Risk Manager will furnish, upon request, all parties in interest with copies of said policies authenticated by authorized agents of the insurers or the State Risk Management Fund.

The above described policies shall be subject to a total deductible of \$500.00 per loss occurrence, which shall be assumed by all insureds in proportion to their share of the total amount of an insured loss occurrence.

Any insured property loss is to be adjusted with the OWNER's Risk Manager, and made payable to the OWNER's Risk Manager as trustee for the insureds, as their interests may appear, subject to the requirements of any applicable loss payable clause.

CONTRACTOR and OWNER hereby waive all rights against each other for damages caused by perils insured against under the property insurance provided by OWNER, except such rights as CONTRACTOR may have to the proceeds of such insurance held by the OWNER's Risk Manager as trustee.

If the CONTRACTOR requests in writing that insurance for special hazards be included in the property insurance policy, the OWNER's Risk Manager shall, if possible, include such

insurance, and the cost thereof shall be charged to the CONTRACTOR by appropriate change order.

27. Indemnification:

"Indemnities" shall be defined for the purposes of this section: the State of Utah and all institutions, agencies, departments, authorities, and instrumentalities of the State of Utah, and any member of their governing bodies, or of their boards or commissions, or any of their elected or appointed officers, or any of their employees or authorized volunteers.

The CONTRACTOR will protect, indemnify and hold harmless indemnities from every kind and character of damages, losses, expenses, demands, claims and causes of action arising against indemnities and their Subcontractors, their officers, agents, employees or any other person, firm or corporation whatsoever from, against, or on account of any and all claims damages, losses, demands causes of action and expenses (including attorney's fees) arising out of or resulting from any violation or alleged violation by CONTRACTOR, his officers, agents and employees, or his Subcontractors or their officers, agents and employees of any federal, state or local law, statute or ordinance, relating to the WORK to be performed by the CONTRACTOR on the project growing out of or incident to the WORK to be performed and operations to be conducted by CONTRACTOR, or his Subcontractors, under this agreement, whether such claims, death or damages, result from or are claimed to have resulted from the negligence of CONTRACTOR, his officers, agents or employees, or his Subcontractors, their officers, agents, employees, or whether resulting from or alleged to have resulted from the concurrent negligence of indemnities and/or CONTRACTORS, their officers, agents or employees. The CONTRACTOR, at his own expense, shall defend any suit or action brought against OWNER based on any such alleged injury, death or damage, and shall pay all damages, costs and expenses, including attorney's fees in connection therewith or in any manner resulting therefrom. Such damages will include all the injuries or damages occasioned by the failure of, use of, or misuse of any and all kinds of equipment, whether owned or rented by CONTRACTOR or furnished by a Subcontractor.

The OWNER shall be fully informed by the CONTRACTOR of settlement negotiations regarding any matter referred to in the preceding paragraph and shall first approve any settlement to be made by CONTRACTOR. Any such settlement shall include a release of all claims relating to OWNER. The form copy of all releases obtained shall be furnished by OWNER. If CONTRACTOR is unable to make settlement of any such claims within fifteen (15) days after the final completion date, the OWNER reserves the right, at his/her option, to either make settlement of the claim and charge the amount to CONTRACTOR or to withhold the dollar amount, in whole or in part, of the claim or claims in question from payment to CONTRACTOR until OWNER receives a release for such claim or claims.

In any and all claims against indemnities by any employee or CONTRACTOR, any Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, the indemnification obligation under this article shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for CONTRACTOR or any Subcontractor under workers' compensation acts, disability benefit acts or other employee benefit acts.

The CONTRACTOR shall indemnify and hold harmless indemnities from all claims, demands, causes of action or suits of whatever nature arising out of services, equipment, supplies, materials and/or labor furnished by CONTRACTOR or its Subcontractors under this agreement; from all labor and/or mechanic or materialmen liens upon the

real property upon which the work is located arising in favor of laborers and/or materialmen, Subcontractors and suppliers, out of services, equipment, supplies, materials and/or labor furnished by CONTRACTOR or any of his/her Subcontractors from all liens, claims and encumbrances arising from the performance of CONTRACTOR or his/her Subcontractors.

28. Guarantee Bonds:

The CONTRACTOR shall include in his/her bid, as part of the quoted total, all costs involved in securing and furnishing the following bonds based on the completed cost of the CONTRACT:

- (a) A full 100% performance bond covering the faithful execution of the CONTRACT; and
- (b) A full 100% payment bond of all obligations arising thereunder.

29. Liens:

Neither the final payment nor any part of the retained percentage shall become due until the CONTRACTOR, if required, shall deliver to the OWNER a complete release of all liens arising out of this CONTRACT, or receipts in full in lieu thereof, and, if required in either case, an affidavit that so far as CONTRACTOR has knowledge or information the releases and receipts include all the labor and materials for which a lien could be filed, but the CONTRACTOR may, if any Subcontractor refuses to furnish a release or receipt in full, furnish a bond satisfactory to the OWNER to indemnify him/her against any lien. If any lien remain unsatisfied after all payments are made, the CONTRACTOR shall refund to the OWNER all moneys that the latter may be compelled to pay in discharging such a lien, including all costs and a reasonable attorney's fee.

30. Assignment:

The CONTRACTOR shall not assign the CONTRACT or sublet it as a whole without the written consent of the OWNER, nor shall the CONTRACTOR assign any moneys due or to become due to CONTRACTOR hereunder, without the previous written consent of the OWNER.

31. Mutual Responsibility of Contractors:

Should the CONTRACTOR cause damage to any separate CONTRACTOR on the WORK, the CONTRACTOR agrees, upon due notice, to settle with such CONTRACTOR by agreement or arbitration, if he/she will so settle. If such separate CONTRACTOR sues the OWNER on account of any damage alleged to have been so sustained, the OWNER shall notify the CONTRACTOR, who shall defend such proceedings at his/her own expense, and if any judgment against the OWNER arises therefrom, the CONTRACTOR shall pay or satisfy it in its entirety.

32. Separate Contracts:

The OWNER reserves the right to let other CONTRACTS in connection with this WORK. The CONTRACTOR shall afford other CONTRACTORS reasonable opportunity for the introduction and storage of their materials and the execution of their work and shall properly connect and coordinate his/her WORK with theirs.

If any part of the CONTRACTOR's WORK depends for proper execution or results upon the WORK of any other CONTRACTOR, the CONTRACTOR shall inspect and promptly report to the OWNER any defects in such WORK that render it unsuitable for such proper execution and results. His/her failure so to inspect and report shall

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constitute an acceptance of the other CONTRACTOR's work as fit and proper for the reception of his/her work, except as to defects which may develop in the other CONTRACTOR's WORK after the execution of his/her WORK. To insure the proper execution of his/her subsequent WORK, the CONTRACTOR shall measure WORK already in place and shall at once report to the OWNER any discrepancy between the executed WORK and the drawings.

33. Subcontractors:

The two apparent low bidders shall furnish to the OWNER, within twenty-four (24) hours after the opening of bids, a list of the Subcontractors by name and amounts where Subcontractors' bids are in excess of \$5,000 and shall not employ any that the OWNER may, within a reasonable time, object to as incompetent or unfit. Bidders shall not list themselves or "self" under any category as Subcontractor unless the bidder intends to perform as the Subcontractor for which he/she lists "self," and unless he/she generally and regularly performs that type of subcontract WORK. The OWNER shall, on request, furnish to any Subcontractor, wherever practicable, evidence of the amounts certified on this account.

The CONTRACTOR agrees that CONTRACTOR is as fully responsible to the OWNER for the acts and omissions of his Subcontractors and of persons either directly or indirectly employed by them, as he/she is for the acts and omissions of persons directly employed by CONTRACTOR.

Nothing contained in the CONTRACT documents shall create any contractual relation between any Subcontractor or supplier and the OWNER.

34. Relations of CONTRACTOR and Subcontractor:

The CONTRACTOR agrees to bind every Subcontractor and every Subcontractor agrees to be bound by the terms of the agreement, the general conditions, and the drawings and specifications as far as applicable to his/her WORK. Nothing in this article shall create any obligation on the part of the OWNER to pay or to see to the payment of any sums to any Subcontractor.

35. State's Inspection:

The OWNER, at his/her option, may assign an inspector to the project. Such staff inspector will cooperate with the CONTRACT REPRESENTATIVE and design engineer in noting deviations from, or necessary adjustments to, the CONTRACT documents or of deficiencies or defects in the construction. The staff inspector's presence on the project, however, shall in no way relieve the CONTRACT REPRESENTATIVE of the prime responsibilities as set forth herein.

36. CONTRACT REPRESENTATIVE Status:

The OWNER shall appoint a CONTRACT REPRESENTATIVE who shall have general supervision of the work and he/she is the agent of the OWNER to the extent provided in the CONTRACT documents and when in special instances he/she is authorized by the OWNER to so act.

As the CONTRACT REPRESENTATIVE is, in the first instance, an interpreter of the conditions of the CONTRACT and a judge of its performance, he/she shall side neither with the OWNER nor with the CONTRACTOR, but shall use his/her powers under the CONTRACT to enforce its faithful performance by both.

37. CONTRACT REPRESENTATIVE's Decisions:

The CONTRACT REPRESENTATIVE shall, within a

reasonable time, make decisions on all claims of the OWNER or CONTRACTOR and on all other matters relating to the execution and progress of the WORK or the interpretation of the CONTRACT documents.

38. Cash Allowances:

The CONTRACTOR shall include in the BID PRICE all allowances named in the CONTRACT documents and shall cause the WORK so covered to be done by such CONTRACTORS and for such sums as the CONTRACT REPRESENTATIVE may specify and certify, the BID PRICE being adjusted in conformity therewith, upon approval of the OWNER.

39. Use of Premises:

The CONTRACTOR shall confine apparatus, the storage of materials and the operations of his/her workers to limits indicated by law, ordinances, permit or directions of the CONTRACT REPRESENTATIVE and shall not unreasonably encumber the premises with his/her materials. The CONTRACTOR shall not load or permit any part of the equipment or structure to be loaded with a weight that will endanger its safety or the safety of any person on the premises.

40. Cutting, Patching and Digging:

The CONTRACTOR shall do all cutting, patching or fitting of his/her WORK that may be required to make its several parts come together properly and fit it to receive or be received by WORK of other CONTRACTORS shown upon, or reasonably implied by, the drawings and specifications for the completed structure, and he shall make good after them as the CONTRACT REPRESENTATIVE may direct.

Any cost caused by defective or ill-timed work shall be borne by the party responsible therefor. The CONTRACTOR shall not endanger any WORK by cutting, digging or otherwise, and shall not cut or alter the WORK of any other CONTRACTOR save with the consent of the CONTRACT REPRESENTATIVE.

41. Cleaning Up:

The CONTRACTOR shall at all times keep the premises free from accumulations of waste material or rubbish caused by his/her employees or WORK. At the completion of the WORK, CONTRACTOR shall remove all rubbish from and about the building and all tools, scaffolding and surplus materials and shall leave his/her WORK "broom-clean" or its equivalent, unless more exactly specified. In case of dispute, the OWNER may remove the rubbish and charge the cost to the several CONTRACTORS as the CONTRACT REPRESENTATIVE may determine to be just.

42. Substitutions:

Where reference is made to one or more propriety products but restrictive descriptive material of one or more manufacturer(s) is used, it is understood that the products of other manufacturers will be accepted, provided they equal or exceed the standards set forth in the plans and specifications and are compatible with the intent and purpose of the design, subject to the written approval of the OWNER and the CONTRACT REPRESENTATIVE prior to the opening of bids. Requests for and information pertaining to said approval must be submitted to the OWNER no later than four (4) working days (not including Saturday, Sunday or state holidays) prior to bid opening. If the descriptive material is not restrictive, the products of other manufacturers specified will be accepted without prior approval provided they are compatible with the intent and purpose of the design.

The CONTRACTOR may propose the substitution of any material as a supplement to his/her bid with the monetary amount, additive or deductive as may be the case, clearly stated and shall include the manufacturer's complete descriptive information with the proposed substitution. This shall be completely apart and separate from the BID PRICE quotation and shall be solely for the information of the OWNER and the use of such proposed substitutions shall be strictly at the decision of the OWNER. If substitution is accepted by the OWNER, the CONTRACT sum shall be adjusted from the BID PRICE either up or down as indicated on the supplementary list by change order after award.

43. Laying Out WORK:

The CONTRACTOR shall be held strictly responsible for the accuracy of the laying out of his/her WORK and for its strict conformity with the existing conditions of the building and shall determine all changes and chases and openings before WORK is commenced.

44. Emergencies:

In an emergency affecting the safety of life, or of the structure or of adjoining property, then the CONTRACTOR, without special instruction or authorization from the OWNER, shall act at his/her discretion to prevent such threatened loss or injury. Any compensation claimed to be due him/her therefrom shall be determined as provided for under Article 17, "Changes."

45. Testing of Materials:

In case the CONTRACT REPRESENTATIVE direct that any materials be tested or analyzed, then the CONTRACTOR shall furnish a sample for the test, such sample being selected according to the directions of the CONTRACT REPRESENTATIVE. The cost of testing or analysis of such sample or samples shall be borne by the manufacturer or supplier of the product. This provision shall not apply to the testing of concrete. The cost of testing shall be borne by the OWNER.

46. Temporary Enclosing, Drying Out, Etc.:

If applicable when openings are made in exterior walls, the CONTRACTOR shall, if required by the OWNER on account of weather or security conditions, close up all exterior openings (except one or more which are to be provided with battened doors, padlocks, etc.) with temporary frames covered with approved material.

The CONTRACTOR must, at all times, protect the building from damage from weather, surface water or subsoil drainage. He/she must keep the excavations dry, if necessary, by pumping, while concrete or masonry is being laid.

47. Examination of Site:

The CONTRACTOR shall visit the site and examine for himself/herself the site conditions. He/she shall furnish all labor and materials necessary for preparation of the site for the execution of this CONTRACT.

48. Storage and Care of Materials:

The CONTRACTOR shall provide, maintain and remove when directed, suitable, substantial, watertight storage sheds upon the premises where directed, in which he/her shall store his/her materials. All cement, lime and other materials affected by moisture shall be covered and protected to keep from damage while it is being transported to the site.

49. Construction Risks:

The construction and all materials and WORK connected therewith shall be at the CONTRACTOR's risk until they are accepted, and he/she will be held responsible for and liable for their safety in the amount paid to him/her by the OWNER on account thereof.

50. Temporary Appurtenances and Conveniences:

The CONTRACTOR shall provide well-fastened ladders and other means to facilitate inspection of the work.

51. Scaffolding, Tools, Etc.:

The CONTRACTOR shall provide and erect all the necessary platforms, scaffolds and supports of ample strength required for the handling of the materials and other loading to be imposed. The same shall apply to all derricks and hoisting machinery, all appliances and materials, ladders, horses, poles, plants, ropes, wedges, centers, moulds, and other tools and materials, and the cartage thereof to and from the site as may become necessary for the performance of his/her contract.

52. Sanitary Provisions:

The CONTRACTOR shall provide a chemical toilet for his workers' use. The CONTRACTOR shall keep the toilet clean, neat and in first-class condition at all times.

53. Refuse:

Refuse barrels are to be provided by the CONTRACTOR for the workers' lunch boxes and papers.

54. Removing Water:

The CONTRACTOR shall remove, at his/her expense from all excavations and/or from the site, all unwanted water appearing from any cause during any stage of the WORK until the site is accepted by the OWNER. All excavations shall be free from water before any concreting or other WORK is done in them.

55. Taxes:

The CONTRACTOR shall include in his/her BID PRICE the cost of social security, unemployment compensation, and sales and use taxes as required by federal and state laws.

56. Citizens Preferred:

Preference shall be given in hiring citizens of the United States or those having declared their intention of becoming citizens; failure to comply may result in the OWNER declaring the contract void.

57. Code Requirements:

The provisions of the 1979 Uniform Building Code, and the 1980 Supplement to Uniform Building Code and Uniform Building Code Standards, the 1981 National Electrical Code, except as specific variances therewith may be authorized by the OWNER, and the 1979 Utah Plumbing Code as amended, shall apply.

If the drawings and specifications fail to meet the minimum standards of the above-mentioned codes, it shall be the responsibility of the CONTRACTOR to bring such information to the attention of the OWNER having jurisdiction. Subcontractors shall also inform the CONTRACTOR of any infractions of the above-mentioned codes regarding their own particular trades.

In the event that workmanship or incidental materials are not

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specified or indicated, they shall at least conform to the above-mentioned codes and shall be incorporated into the work without any additional cost to the OWNER. If the plans and specifications call for items or workmanship which exceed the codes, the plans and specifications hold precedence over any code requirements.

58. Nondiscrimination - Equal Employment Opportunity:

In order to comply with the provisions of the Utah Anti-Discrimination Act of 1965, relating to unfair employment practices, the CONTRACTOR agrees as follows:

- A. The CONTRACTOR will not discriminate against any employee or applicant for employment because of race, color, sex, religion ancestry or natural origin.
- B. In all solicitations or advertisements for employees, the CONTRACTOR will state that all qualified applicants will receive consideration without regard to race, color, sex, religion, ancestry or national origin.
- C. The CONTRACTOR will send to each labor union or workers' representative notices to be provided, stating the CONTRACTOR's responsibilities under the statute.
- D. The CONTRACTOR will furnish such information and reports as requested by the division for the purpose of determining compliance with the statute.
- E. Failure of the CONTRACTOR to comply with the statute, the rules and regulations promulgated thereunder and this nondiscrimination clause shall be deemed a breach of contract and it may be canceled, terminated or suspended in whole or in part.
- F. The CONTRACTOR shall include the provisions of the above Paragraphs A through E in all subcontracts for this project.

59. Affirmative Action:

The CONTRACTOR will take affirmative action to ensure that applicants are employed and that employees are treated during employment without regard to their race, color, religion, sex or national origin. Such action shall include, but not be limited to the following: employment; upgrading; demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship.

At its discretion, the OWNER may perform a compliance review at the office and project of the CONTRACTOR to check on compliance in hiring practices, record-keeping, contracting of agencies and unions, advertising, informing of personnel of the requirements under this provision, etc. If the visit to the project site or other information received indicates need to perform a compliance review more frequently on a project, this will be done. The size of the project, complaint situation, and past record of CONTRACTOR will determine the frequency of on-the-job compliance reviews.

60. Safety:

The CONTRACTOR shall institute a safety program at the start of construction to minimize accidents; such program to continue to the end of the job and conform to the latest general safety orders of the State Industrial Commission. The CONTRACTOR shall post signs, erect barriers, etc., as necessary to implement this program. The CONTRACTOR shall have all workers and all visitors on site wear safety hard hats and obey all safety rules and regulations and statutes as soon as the CONTRACTOR proceeds. The CONTRACTOR

shall post a sign regarding hats in a conspicuous location and furnish extra hats at his/her expense for visitors.

61. Rubbish Disposal:

Rubbish, trash, etc., shall not be burned on premises unless approved by the local fire authority, but rather, hauled from the site and legally disposed of or other methods as specified by OWNER.

62. Subcontractors Financial Bid Limits and License Classification:

The CONTRACTOR shall verify the license classification and bid limit of each of his/her Subcontractors. Regulations prohibit work of the above Subcontractors exceeding their respective bid limit and working outside of license classification as determined by the Department of Business Regulation, Department of Contractors.

In the event the bid limit or classification is not complied with, the respective Subcontractor(s) mentioned above will be disqualified by the OWNER, and the CONTRACTOR shall be responsible to provide a suitable and properly qualified Subcontractor as approved by the OWNER without a change in the contract price.

63. Balancing and Testing:

It is the intent of this specification that the site, when presented to the OWNER for final acceptance, be complete and operable in all respects, including, but not limited to, mechanical, utilities, and other systems which are tuned, tested, and balanced to the satisfaction of the OWNER, or his/her appropriate engineers and consultants. Any and all testing and balancing necessary shall be done as part of the CONTRACT with the state.

During, or in connection with the inspection of the WORK, the CONTRACTOR or his/her appropriate Subcontractor(s) shall perform such tests and/or demonstrations of the operation of the systems, or its components, as may be requested by the OWNER, or his/her appropriate engineers and consultants, as necessary to adequately determine the acceptability of the installation.

64. Substantial Completion:

The OWNER will conduct inspections to determine the dates of substantial completion and final payment, will receive written guarantees and related documents required by the CONTRACT and assembled by the CONTRACTOR and submit these to the OWNER, and will issue a final certificate for payment.

The date of substantial completion of the WORK or designated portion thereof is the date certified by the OWNER when construction is sufficiently complete in accordance with the CONTRACT documents so the OWNER may occupy the site or designated portion thereof for the use for which it is intended. When the CONTRACTOR determines that the WORK, or a designated portion thereof acceptable to the OWNER, is substantially complete, the OWNER shall prepare a list of items to be completed or corrected. The failure to include any item on such list does not alter the responsibility of the CONTRACTOR to complete all WORK in accordance with the contract documents. When the OWNER, on the basis of an inspection, determines that this WORK is substantially complete, the CONTRACT REPRESENTATIVE then will prepare a Certificate of Substantial Completion which shall establish the date of substantial completion; shall state the responsibilities of the OWNER and the CONTRACTOR for maintenance, heat, utilities and insurance; and shall fix the time within which the CONTRACTOR shall complete the

items listed therein, said time to be within the CONTRACT time unless extended pursuant to Article, "Delays and Extension of Time." The certificate of substantial completion shall be submitted to the OWNER and the CONTRACTOR for their written acceptance of the responsibilities assigned to them in such certificate. A sample form of the certificate of substantial completion is included in the specifications.

If within one year after the date of substantial completion or within such longer period of time as may be prescribed by law or by the terms of any applicable special guarantee required by the CONTRACT documents, any of the WORK is found to be defective or not in accordance with the CONTRACT documents, the CONTRACTOR shall correct it promptly after receipt of written notice from the OWNER to do so unless the OWNER has previously given the CONTRACTOR a written acceptance of such condition. The OWNER shall give such notice promptly after discovery of the condition.

65. Other Prohibited Interests:

No official of the OWNER who is authorized in such capacity and on behalf of the OWNER to negotiate, make, accept or approve, or to take part in negotiating, making, accepting, or approving any architectural engineering, inspection, construction or material supply contract or any subcontract in connection with the construction of the project, shall become directly interested personally in the contract or in any part hereof.

No officer, employee, attorney, engineer or inspector of or for the OWNER who is authorized in such capacity and on behalf of the OWNER to exercise any legislative, executive, supervisory or other similar functions in connection with the construction of the project shall become directly or indirectly interested personally in this contract or in any part thereof, any material supply contract, subcontract, insurance contract, or any other contract pertaining to the project.

66. Conflicting Conditions:

Any provision in any of the CONTRACT documents which may be in conflict or inconsistent with any of the paragraphs in these general conditions shall be void to the extent of such conflict or inconsistency. In the event of conflicts of plans and specifications, the CONTRACTOR shall follow the most stringent requirements as approved by the OWNER.

67. Monthly Progress Meetings:

Monthly progress meetings may be held at the discretion of the OWNER or the general CONTRACTOR, at which time the Subcontractors and/or suppliers will be required to be present.

68. Suspension of WORK:

- A. Suspension of WORK for the Convenience of the Owner. The OWNER may order the CONTRACTOR in writing to suspend, delay or interrupt all or any part of the WORK for such period of time as the OWNER may determine to be appropriate for the convenience of the OWNER.
- B. Adjustment of Cost. If the performance of all or any part of the work is suspended, delayed or interrupted by an act or failure to act of the OWNER for an unreasonable period of time, an equitable adjustment in the CONTRACT price shall be made for any increase in the cost of performance of this CONTRACT necessarily caused by such unreasonable suspension, delay or interruption and an equitable adjustment of time for completion of the WORK will be allowed the

CONTRACTOR and the CONTRACT shall be modified in writing accordingly. However, no adjustment shall be made under this clause for any suspension, delay or interruption to the extent:

- (1) That performance would have been so suspended, delayed or interrupted by any other cause, including the fault or negligence of the CONTRACTOR; or
- (2) For which an adjustment is provided or excluded under any other provision of this CONTRACT.

C. Time Period for Claims. Any claim by the CONTRACTOR for adjustment under this clause must be asserted by the CONTRACTOR, in writing, within thirty (30) days from the date of termination of such suspension, delay or interruption; provided that the OWNER may, in his/her sole discretion, receive and act upon any such claim asserted at any time prior to final payment under this CONTRACT.

D. Adjustments of Price. Any adjustment in contract price made pursuant to this clause shall be determined in accordance with the price adjustment clause of this CONTRACT.

69. Differing Site Conditions:

A. Notice. The CONTRACTOR shall promptly, and before such conditions are disturbed, notify the OWNER, in writing, concerning any:

- (1) Subsurface or latent physical conditions at the site differing materially from those indicated in this CONTRACT; or
- (2) Unknown physical conditions at the site of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in WORK of the character provided for in this CONTRACT.

B. Adjustments of Price or Time for Performance. After receipt of such notice, the OWNER shall promptly investigate the site, and if it is found that such conditions do materially so differ and cause an increase in the CONTRACTOR's cost of, or the time required for, performance of any part of the WORK under this contract, whether or not changed as a result of such conditions, an equitable adjustment shall be made and the CONTRACT modified in writing accordingly. Any adjustment in CONTRACT price made pursuant to this clause shall be determined in accordance with the Price Adjustment Clause of this CONTRACT.

C. Time Period for Notice of Claims. Any claim by the CONTRACTOR for an adjustment under this clause must be asserted by the CONTRACTOR, in writing, within thirty (30) days from the date of the CONTRACTOR's notice to the OWNER concerning the differing site conditions; provided that the OWNER may, in his/her sole discretion, receive and act upon any such claim asserted at any time prior to issuance of notice of substantial completion.

D. No claim shall be allowed unless the CONTRACTOR has given the notice required in Subparagraph (A) of this clause; provided that the time prescribed therefor may be extended by the OWNER.

E. Knowledge. Nothing contained in this clause shall be grounds for an adjustment in compensation if the CONTRACTOR had actual knowledge of the existence of such conditions prior to the submission of bids.

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70. Price Adjustment:

- A. Price Adjustment Methods. Any adjustment in BID PRICE pursuant to any clause in this CONTRACT shall be made in one or more of the following ways:
- (1) By agreement on a fixed-price adjustment before commencement of the pertinent performance;
 - (2) By unit prices specified in this CONTRACT;
 - (3) By the costs attributable to the applicable events or situations, plus appropriate profit or fee, in the following manner:
 - (a) The CONTRACTOR shall furnish to the OWNER a detailed estimate of the actual cost of labor, materials, taxes and equipment required for the performance of such WORK. Equipment rental rates shall not exceed those of comparable rates charged by rental companies or as agreed to by the OWNER and CONTRACTOR prior to start of the project.
 - (b) For added or omitted work by a Subcontractor (not including unit price) the CONTRACTOR shall furnish to the OWNER a detailed estimate of the actual cost of the Subcontractors for labor, materials, taxes and equipment to be used for such WORK. Each such estimate shall be signed by the Subcontractor as his/her estimate of the costs thereto.
 - (c) The CONTRACTOR and Subcontractor agree that a fixed fee not exceeding 15% of the increased costs shall be full compensation to cover all costs of supervision, overhead, bond, and any other direct or indirect overhead expenses and profit.
 - (4) In such manner as the parties may mutually agree; or
 - (5) In the absence of agreement between the parties, by a unilateral determination by the OWNER of the costs attributable to the applicable event or situation, plus appropriate profit or fee, all as computed by the OWNER, subject to the CONTRACTOR's legal and contractual remedies.
- B. Submission of Cost or Pricing Data. The CONTRACTOR shall submit certified cost or pricing data for any price adjustments, except where they are based upon established catalog prices or market prices, or upon adequate price competition or are set by law or regulation. Any price adjustments allowable hereunder shall exclude sums found by the OWNER to have resulted from any cost or pricing data furnished by the CONTRACTOR which were inaccurate, incomplete or not current as of the date of their submission to the OWNER.

71. Termination for Convenience of the Owner:

- A. The performance of WORK under this contract may be terminated by the OWNER in accordance with this clause in whole, or from time to time, in part, whenever the OWNER shall determine that such termination is in the best interest of the OWNER or any person for whom the OWNER is acting under this CONTRACT. Any such termination shall be effected by delivery to the CONTRACTOR of a notice of termination specifying the extent to which performance of WORK under the contract is terminated, and the date upon which such termination becomes effective.

No termination may be effected unless the CONTRACTOR is given (1) not less than ten calendar days written notice (delivered by certified mail, return receipt requested), and (2) an opportunity for consultation with the OWNER prior to termination.

- B. After receipt of a notice of termination, and except as otherwise directed by the OWNER, the CONTRACTOR shall:
- (1) Stop WORK under the CONTRACT on the date and to the extent specified in the notice of termination;
 - (2) Place no further orders or subcontracts for materials, services or facilities, except as may be necessary for completion of such portion of the WORK under the CONTRACT as is not terminated;
 - (3) Terminate all orders and subcontracts to the extent that they relate to performance of WORK terminated by the notice of termination;
 - (4) Assign to the OWNER in the manner, at the times, and to the extent directed by the OWNER, all of the right, title, and interest of the CONTRACTOR under the orders and subcontracts so terminated, in which case the OWNER shall have the right, in his/her discretion, to settle or pay any or all claims arising out of the termination of such orders and subcontracts;
 - (5) Settle all outstanding liabilities and all claims arising out of such termination of orders and subcontracts, with the approval or ratification of the OWNER, which approval or ratification shall be final for all the purposes of this clause;
 - (6) Transfer title and deliver to the OWNER in the manner, at the times, and to the extent, if any, directed by the OWNER:
 - (a) The fabricated or unfabricated parts, WORK in process, completed WORK, supplies, and other material produced as a part of, or acquired in connection with the performance of the WORK terminated by the notice of termination; and
 - (b) The completed or partially completed plans, drawings, information, and other property which, if the CONTRACT had been completed, would have been required to be furnished to the OWNER;
 - (7) Use his/her best efforts to sell, in the manner, at the times, to the extent, and at the price or prices directed or authorized by the OWNER, any property of the types referred to in (6) above; provided, however, that the CONTRACTOR:
 - (a) Shall not be required to extend credit to any purchaser; and
 - (b) May acquire any such property under the conditions prescribed by and at a price or prices approved by the OWNER; and provided further that the proceeds of any such transfer of disposition shall be applied in reduction of any payments to be made by the OWNER to the CONTRACTOR under this CONTRACT or shall otherwise be credited to the price or cost of the work covered by this CONTRACT or paid in such other manner as the OWNER may direct;

- (8) Complete performance of such part of the WORK as shall not have been terminated by the notice of termination; and
 - (9) Take such action as may be necessary, or as the OWNER may direct, for the protection and preservation of the property related to this contract which is in the possession of the CONTRACTOR in which the OWNER has or may acquire an interest.
- C. After receipt of a notice of termination, the CONTRACTOR shall submit to the OWNER his/her termination claim, in the form and with certification prescribed by the OWNER. Such claim shall be submitted promptly but in no event not later than sixty (60) days from the effective date of termination, unless one or more extensions in writing are granted by the OWNER, upon request of the CONTRACTOR made in writing within such period or authorized extension thereof. However, if the OWNER determines that the facts justify such action, he/she may receive and act upon any such termination claim at any time after such sixty (60) day period or any extension thereof. Upon failure of the CONTRACTOR to submit his/her termination claim within the time allowed, the OWNER may determine, on the basis of information available to him/her, the amount, if any, due to the CONTRACTOR by reason of the termination and shall thereupon pay to the CONTRACTOR the amount so determined.
- D. Subject to the provisions of Paragraph (C), the CONTRACTOR and the OWNER may agree upon the whole or any part of the amount or amounts to be paid to the CONTRACTOR by reason of the total or partial termination of WORK pursuant to this clause, which amount or amounts may include a reasonable allowance for profit on WORK done; provided that such agreed amount or amounts, exclusive of settlement costs, shall not exceed the total contract price as reduced by the amount of payments otherwise made and as further reduced by the CONTRACT price of work not terminated. The CONTRACT shall be amended accordingly, and the CONTRACTOR shall be paid the agreed amount. Nothing in Paragraph (E) of this clause, prescribing the amount to be paid to the CONTRACTOR in the event of failure of the CONTRACTOR and the OWNER to agree upon the whole amount to be paid to the CONTRACTOR by reason of the termination of work pursuant to this clause, shall be deemed to limit, restrict, or otherwise determine or affect the amount or amounts which may be agreed upon to be paid to the CONTRACTOR pursuant to this Paragraph (D).
- E. In the event of the failure of the CONTRACTOR and the OWNER to agree, as provided in Paragraph (D), upon the whole amount to be paid to the CONTRACTOR by reason of the termination of WORK pursuant to this clause, the OWNER shall pay to the CONTRACTOR the amounts determined by the OWNER as follows, but without duplication of any amounts agreed upon in accordance with Paragraph (D):
- (1) With respect to all CONTRACT WORK performed prior to effective date of the notice of termination, the total (without duplication of any items) of:
 - (a) The cost of such WORK;
 - (b) The cost of settling and paying claims arising out of the termination of WORK under subcontracts or orders as provided in Paragraph (B)(5) above, exclusive of the amounts paid or payable on account of supplies or materials delivered or services furnished by the Subcontractor prior to the effective date of the notice of termination under this CONTRACT, which amounts shall be included in the cost on account of which payment is made under (a) above; and
 - (c) A sum, as profit on (a) above, determined by the OWNER to be fair and reasonable; provided, however, that if it appears that the CONTRACTOR would have sustained a loss on the entire CONTRACT had it been completed, no profit shall be included or allowed under this subdivision (c) and an appropriate adjustment shall be made reducing the amount of the settlement to reflect the indicated rate of loss; and
- (2) The reasonable cost of the preservation and protection of property incurred pursuant to Paragraph (B)(9); and any other reasonable cost incidental to termination of WORK under this CONTRACT, including expense incidental to the determination of the amount due to the CONTRACTOR as the result of the termination of WORK under this CONTRACT.
- The total sum to be paid to the CONTRACTOR under (E)(1) above shall not exceed the total CONTRACT price as reduced by the amount of payments otherwise made and as further reduced by the CONTRACT price of WORK not terminated. Except for normal spoilage, and except to the extent that the OWNER shall have otherwise expressly assumed the risk of loss, there shall be excluded from the amounts payable to the CONTRACTOR under (E)(1) above, the fair value, as determined by the OWNER of property which is destroyed, lost, stolen, or damaged so as to become undeliverable to the OWNER, or to a buyer pursuant to Paragraph (B)(7).
- F. In arriving at the amount due the CONTRACTOR under this clause, there shall be deducted:
- (1) All unliquidated advance or other payments on account theretofore made to the CONTRACTOR, applicable to the terminated portion of this CONTRACT;
 - (2) Any claim which the OWNER may have against the CONTRACTOR in connection with this CONTRACT; and
 - (3) The agreed price for, or the proceeds of sale of, any materials, supplies, or other things acquired by the CONTRACTOR or sold, pursuant to the provisions of this clause, and not otherwise recovered by or credited to the OWNER.
- G. If the termination hereunder be partial, the CONTRACTOR may file with the OWNER a claim for an equitable adjustment of the price or prices specified in the CONTRACT relating to the continued portion of the CONTRACT (the portion not terminated by the notice of termination), and such equitable adjustment as may be agreed upon shall be made in such price or prices. Any claim by the CONTRACTOR for an equitable adjustment under this clause must be asserted within sixty (60) days from the effective date of the notice of termination, unless an extension is granted in writing by the OWNER.
- H. The OWNER may, from time to time, under such terms and conditions as he may prescribe, make partial payments and payments on account against costs incurred by the CONTRACTOR in connection with the

General Conditions

terminated portion of this CONTRACT whenever, in the opinion of the OWNER the aggregate of such payments shall be within the amount to which the CONTRACTOR will be entitled hereunder. If the total of such payments is in excess of the amount finally agreed or determined to be due under this clause, such excess shall be payable by the CONTRACTOR to the OWNER upon demand, together with interest at a rate equal to the average rate at the time being received from the investment of state funds, as determined by the State Treasurer, for the period from the date such excess is repaid to the OWNER; provided, however, that no interest shall be charged with respect to any such excess payment attributable to a reduction in the CONTRACTOR's claim by reason of retention or other disposition of termination inventory until ten (10) days after the date of such retention or disposition, or such later date as determined by the OWNER by reason of the circumstances.

- I. Unless otherwise provided for in this contract, or by applicable statute, the CONTRACTOR shall - from the effective date of termination until the expiration of three years after final settlement under this CONTRACT - preserve and make available to the OWNER at all reasonable times at the office of the CONTRACTOR, but without direct charge to the OWNER, all books, records, documents and other evidence bearing on the costs and expenses of the CONTRACTOR under this CONTRACT and relating to the work terminated hereunder, or, to the extent approved by the contracting officer, photographs, micrographs, or other authentic reproductions thereof.

72. Liquidated Damages:

The CONTRACTOR is referred to Attachment C, Article 12 of the contract for conditions of liquidated damages.

73. Termination for Breach, Etc.:

If the CONTRACTOR shall be adjudged bankrupt, or if CONTRACTOR should make a general assignment for the benefit of his/her creditors, or if a receiver should be appointed on account of CONTRACTOR's insolvency, or if CONTRACTOR or any of his/her Subcontractors should violate any of the provisions of this CONTRACT, the OWNER may serve written notice upon CONTRACTOR of its intention to terminate said CONTRACT; and unless within ten (10) days after the serving of such notice, such violation shall cease, the OWNER then may take over the WORK and prosecute same to completion by CONTRACT or by any other method it may deem advisable for the amount and at the expense of the CONTRACTOR. The CONTRACTOR shall be liable to the OWNER for any excess cost occasioned the OWNER thereby and in such event, the OWNER may, without liability for so doing, take possession of and utilize in completing the WORK, such materials, appliances, paint, and any other property belonging to the CONTRACTOR as may be on the site of the work and necessary therefor.

74. Normal Daylight Hours:

Contractor shall perform WORK on the premises during normal daylight hours and shall not perform WORK on the site when artificial light would be required to safely perform the WORK.

75. Normal Working Days:

CONTRACTOR shall perform the WORK during normal working days and shall not work during Sundays, or recognized national and state holidays. CONTRACTOR may take the option of working on Saturdays if the WORK is scheduled regularly to be performed on Saturdays and is

approved by OWNER.

76. Use of Explosives

The storage, possession or use of explosives on the site shall be strictly prohibited unless expressly authorized by the OWNER and approved by the State.

77. Compliance with Copeland Regulations

The CONTRACTOR shall comply with the Copeland Regulations of the Secretary of Labor (29 CFR Part 3) which are incorporated herein by reference.

78. Overtime Compensation

- A. The CONTRACTOR or Subcontractor shall not require or permit any laborer or mechanic in any workweek in which he or she is employed under this CONTRACT to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek, whichever is the greater number of overtime hours.
- B. In the event of any violation of the provisions of paragraph (a), the CONTRACTOR or Subcontractor shall be liable to any affected employee for any amounts due, and to the State of Utah for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the provisions of paragraph (a) in the sum of \$10 for each calendar day on which such employee was required or permitted to work in excess of the standard forty hour workweek without payment of the overtime wages required by paragraph (a).

79. Clean Air and Water

The CONTRACTOR shall use best efforts to comply with all requirements and applicable regulations, standards, and implementation plans under the Clean Air Act (42 USC 7401 et seq.) and the Clean Water Act (33 USC 1251 et seq.). No part of the WORK shall be performed in a facility listed on the U.S. Environmental Protection Agency List of Violating Facilities during the term of the CONTRACT. CONTRACTOR further agrees to insert the substance of this clause in any Subcontract.

Clean air and water standards include any enforceable rules, regulations, guidelines, orders, or other requirements issued under the Clean Air Act, Clean Water Act, or Executive Order 11738; applicable approved implementation plans described in Sections 110(d), 111(c&d), or 112(d) of the Clean Air Act; and requirements contained in permits issued by the U.S. Environmental Protection Agency or state or local governments authorized by Sections 402 or 307 of the Clean Water Act. "Facility," as used here, means any building, plant, structure, mine, location, or site of operations owned, leased, or supervised by the CONTRACTOR or Subcontractor in the performance of the CONTRACT.

[Last Revised November 5, 2002.]

Supplemental General Conditions

1. Statement Clarification of Terms:

The Division of Oil, Gas & Mining will assume responsibility for design and engineering on this project and will provide inspection. See Articles 36, 37, and 38.

2. Plan Checks:

Checks shall be made out to the Utah Division of Oil, Gas & Mining.

3. Equal Opportunity:

The CONTRACTOR agrees to abide by the provisions of Titles VI and VII of the Civil Rights Act of 1964 (42 USC 2000e) which prohibits discrimination against any employee or applicant for employment or any applicant or recipient of services on the basis of race, religion, color, or national origin. CONTRACTOR further agrees to abide by the following directives: Executive Order No. 11246, as amended, which prohibits discrimination on the basis of sex; federal regulation 45 CFR 90, which prohibits discrimination on the basis of age; Section 504 of the Rehabilitation Act of 1973 (29 USC 701 et seq), which prohibits discrimination on the basis of handicap; and Utah's Executive Order, dated June 30, 1989, which prohibits sexual harassment in the workplace.

4. Access to Records:

The CONTRACTOR agrees to provide the OWNER, the U.S. Office of Surface Mining, The Comptroller General of the United States, or any of their duly authorized representatives access to any books, documents, papers, and records which are directly pertinent to this CONTRACT for the purpose of making audit, examination, excerpts, and transcriptions. Such access will be made during normal business hours, or by appointment.

5. Retention of Records:

The CONTRACTOR agrees to retain and preserve any books, documents, papers, and records which are directly pertinent to this CONTRACT for a period of four years from the date of final payment for the WORK or from the date of Final Acceptance, whichever is later.

6. Variation in Estimated Quantities:

Variations Requiring Adjustments. Where the quantity of any item within the scope of this CONTRACT is an estimated quantity and where the actual quantity of such item varies by more than 15% above or below the estimated quantity stated in this CONTRACT, an adjustment in the CONTRACT price shall be made upon demand of either party. The adjustment shall be based upon any increase or decrease in costs due solely to variation above 115% or below 85% of the estimated quantity. If the quantity variation is such as to cause an increase in the time necessary for completion, the OWNER, upon receipt of a written request for an extension of time, prior to the date of final settlement of the CONTRACT, shall ascertain the facts and make adjustment for extending the completion date as in the judgment of the OWNER such facts justify.

7. Authority:

Provisions of this contract are pursuant to the authority set forth in Sections 63-56 UCA 1953 as amended, the Utah State Procurement Rules (*Utah Administrative Code*, Section R33), and related statutes which permit the OWNER to purchase certain specified services and other approved purchases for the State.

8. Conflict of Interest:

CONTRACTOR represents that none of its officers or employees are officers or employees of the State of Utah, unless disclosure has been made in accordance with Section 67-16-8, UCA 1953, as amended.

9. Separability Clause:

The declaration by any court or any other binding legal source that any provision of this contract is illegal and void shall not affect the legality and enforceability of any other provision of this contract unless the provisions are mutually dependent.

10. Debarment:

The CONTRACTOR certifies that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this contract by any governmental department or agency.

[Last Revised April 2, 1993.]

VERNON SHEEPROCKS PROJECT

TECHNICAL SPECIFICATIONS

SECTION 0200	GENERAL SITE INFORMATION
SECTION 0220	MOBILIZATION/DEMOBILIZATION
SECTION 0230	ACCESS IMPROVEMENT
SECTION 0250	MINE CLOSURES
SECTION 0251	CAST-IN-PLACE CONCRETE
SECTION 0252	CONCRETE REINFORCEMENT
SECTION 0253	BAT GATE & SHAFT GRATE INSTALLATION
SECTION 0270	SITE GRADING/EARTHWORK
SECTION 0290	REVEGETATION
SECTION 0300	SPECIFIC SITE REQUIREMENTS

0200 General Site Information

PART 1 - GENERAL

1.01 WORK INCLUDED

The WORK consists of reclamation of abandoned mine features as described in Section 0300. The General Technical Specifications, Sections 0200 through 0290, outline WORK broadly applicable to all abandoned mine reclamation situations and that may not be required at each mine site in this project. Section 0300 provides the site-specific detail. Where there is a conflict between Section 0300 and the General Technical Specifications (0200's), Section 0300 shall govern.

1.02 SUBMITTALS

- A. Submittals requested in the Technical Specifications to be submitted with the Bid Proposal shall be included in and submitted with the sealed bid proposal delivered to the Division of Purchasing.
- B. Submittals requested in the Technical Specifications to be submitted after award of the CONTRACT or during construction shall be delivered to the designated representative for the Division of Oil, Gas and Mining (DOGM), referred to in these Specifications as the OWNER.

CONTRACTOR shall submit within five (5) days after award of the CONTRACT a calendar of WORK for performing the WORK, including routine workdays and hours, anticipated holidays, and days that the project will remain idle. Schedule shall also indicate WORK schedules for subcontractors and their estimated start and completion days. Allowance in the schedule shall be made for routine delays due to weather or other site conditions as they occur. The OWNER shall approve said schedule. Any significant deviation from that schedule shall be submitted in writing to the OWNER in the form of an updated schedule as the WORK progresses.

1.03 RELATED WORK

- A. Section 0220: Mobilization/Demobilization
- B. Section 0230: Access Improvement
- C. Section 0250: Mine Closures
- D. Section 0251: Cast-in-Place Concrete
- E. Section 0252: Concrete Reinforcement
- F. Section 0253: Bat Gate & Shaft Grate Installation
- G. Section 0270: Site Grading/Earthwork
- H. Section 0290: Revegetation
- I. Section 0300: Specific Site Requirements

1.04 CONDITIONS AND RESTRICTIONS

- A. The project area and vicinity may contain several abandoned mine and/or town sites, but WORK will be limited to items specifically identified in Section 0300: Specific Site Requirements.
- B. *The pre-bid meeting is optional.* However, due to the nature of the WORK at these sites, the CONTRACTOR is strongly encouraged to participate in the entire prebid site tour and meeting in order to submit a responsible bid. The CONTRACTOR shall acknowledge in the bid that the site conditions have been examined and that the measurements and evaluations necessary to plan and bid the WORK have been made.
- C. Due to the hazards associated with abandoned mines, all WORK on mine portals shall be conducted under the supervision of a qualified person with current certification to do such WORK under the General Safety Orders of Utah Coal Mines (i.e. Mine Foreman and/or Fire Boss). This person is referred to as the "Certified Person" in these specifications hereafter. No smoking or open flames shall be permitted within fifty feet of any mine opening. Welding in or near a mine opening is permitted with the approval of the Certified Person. No person shall be permitted to enter a mine opening unless the atmosphere of the opening is tested, the roof is adequately supported and tested, and only at the direction of the Certified Person.

- D. CONTRACTOR shall identify and develop rapid communication procedures with the closest available emergency medical response units and medical centers. All workers, foremen, superintendents, and managers shall be indoctrinated to emergency response procedures.
- E. CONTRACTOR shall be aware that underlying mine workings exist in the areas to be disturbed by the CONTRACTOR. The location, extent, and condition of the underground workings at each mine site are not well known. These workings or voids where workings have caved may be encountered unexpectedly during the course of the WORK and present a hazard to equipment operators and other workers at the site. The CONTRACTOR shall take every precaution to protect the safety of the workers during WORK on the project. Any voids or openings excavated or discovered shall be brought to the immediate attention of the OWNER.
- F. The WORK shall stop and the OWNER shall be notified immediately if an accident occurs or upon discovery of a hazard that threatens the safety of workers or the public. The OWNER shall be notified immediately of any situation that may cause environmental damage.
- G. CONTRACTOR shall provide, erect, and maintain temporary barriers, signs, and security devices as necessary to ensure the safety of the CONTRACTOR's personnel, the OWNER's personnel, and the general public.
- H. WORK shall occur normally during daylight hours and shall not be performed when darkness or other conditions required the use of artificial light to safely perform the WORK, without the prior written approval of the OWNER.
- I. WORK shall be performed during weekdays and shall not be performed during weekends or legal State and Federal holidays without the prior written approval of the OWNER. A schedule of holidays is available from the OWNER.
- J. WORK shall be conducted with minimum interference to public or private thoroughfares. Egress and access shall be maintained at all times.
- K. Roadways shall not be closed or obstructed without permits. The CONTRACTOR will close and lock gates at the landowner's request.
- L. All trucks transporting materials and debris shall be covered with tarps or other suitable coverings if necessary to eliminate loss of debris during transportation to off-site disposal areas.
- M. CONTRACTOR shall provide water and an adequate water supply system for dust suppression where dust will cause a public nuisance or as directed by OWNER. The CONTRACTOR will pay the cost of water and dust suppression.
- N. No materials shall be placed in or be situated such that they may enter any stream, tributary, or drainage channel.
- O. Relics, antiques, artifacts and similar objects as identified by the OWNER remain the property of the OWNER. CONTRACTOR shall notify the OWNER upon discovery of cultural features and obtain direction from OWNER regarding handling of features that interfere with performing the WORK. Relics and antiques include, but are not limited to:
 - 1. Cornerstone and contents
 - 2. Commemorative plaques
 - 3. Archaeological relics or finds
 - 4. Historical relics
- P. CONTRACTOR shall remove and promptly dispose of any contaminated, vermin infested, or dangerous materials encountered. Transformers, oil-filled electrical equipment, or other toxic materials shall be called immediately to the attention of the OWNER. Disposal of such items shall be the responsibility of the CONTRACTOR and at the direction of the OWNER in accordance with EPA and State Health requirements.

Section 0200

- Q. CONTRACTOR shall remove from site all debris created during construction.
- R. Materials shall not be burned on site without appropriate permits and the approval of the OWNER.
- S. Blasting shall be permitted only with prior written approval of the OWNER and following submission by the CONTRACTOR of a blasting plan.
- T. Existing utilities, benchmarks, trees, vegetation, and landscaping materials which are not to be demolished, relocated, or otherwise disturbed shall be protected.
- U. Wildlife of any kind (except Norway rats) encountered during the WORK shall be left unharmed or, if captured, released unharmed offsite. Snakes, including rattlesnakes, shall not be harmed. Any wildlife inadvertently killed by the CONTRACTOR will be turned over to the OWNER to be disposed of under the Certificate of Registration (COR Number 6COLL5414) issued to the OWNER by the Utah DWR. CONTRACTOR shall immediately notify OWNER of any bats found in mine openings.
- V. CONTRACTOR shall compensate employees at a rate of no less than 1.5 times the base rate of pay for work beyond 40 hours in one week.
- W. CONTRACTOR shall submit to OWNER each week daily logs indicating the following: 1) weather conditions, 2) crew size, 3) hours worked, 4) equipment used, 5) work completed, 6) WORK approved, 7) delays, 8) equipment downtime, 9) injuries, 10) visitors, 11) access problems, etc. OWNER has provided a form for these logs in Appendix C.
- X. Should onset of adverse winter or extreme summer weather conditions force construction to stop prior to completion of the WORK, the sites shall be left in a condition that minimizes safety hazards and risk of erosion. Temporary erosion control structures may be required. Revegetation may be postponed to the fall if necessary.
- Y. Depending upon the bid submittals and the overall CONTRACTOR selection process, CONTRACTOR WORK may precede, follow, or occur during work by other CONTRACTORS at the same site and/or other sites in the Project Area.
- Z. CONTRACTOR shall select from a pre-determined number of staging areas identified in the specifications and secure all necessary permits, including camping permits, from the applicable land management agency.

1.05 QUALITY ASSURANCE

- A. CONTRACTOR shall use only quality materials in performing the WORK.
- B. Quality of the WORK performed by the CONTRACTOR shall be subject to approval by the OWNER. CONTRACTOR shall assure that the WORK has been performed to the specifications and standards as described herein. The OWNER shall inspect and accept or reject the WORK as the WORK progresses. Payment shall be made only for WORK accepted and approved by the OWNER. CONTRACTOR shall warrant the WORK for a period of one year following final acceptance except that such material warranties and guarantees from manufacturers and suppliers that may be longer than one year shall carry for their term.

PART 2 - PRODUCTS

2.01 GENERAL

Products and materials used in the WORK shall be as required in these Specifications.

2.02 DELIVERY, STORAGE AND HANDLING

- A. CONTRACTOR shall be responsible for the delivery, storage and handling of all items and materials used in performing the WORK.

- B. CONTRACTOR shall be responsible for all materials used in conjunction with the WORK until said WORK is accepted and approved by the OWNER and shall warrant all materials as required by Part 1.05, Quality Assurance.

PART 3 - EXECUTION

PREPARATION

- A. Upon receipt of notice to proceed, the CONTRACTOR shall perform the WORK as required by these Specifications and Construction Drawings.
- B. CONTRACTOR shall obtain and provide proof of all licenses, permits, bonds, insurance and other such items as may be required by these Specifications and local, regional, State and Federal jurisdictions prior to execution of the WORK. CONTRACTOR shall select from a pre-determined set of staging areas identified in the specifications and secure all necessary permits, including camping permits, from the applicable land management agency.
- C. Upon receipt by the CONTRACTOR of the NOTICE TO PROCEED, the CONTRACTOR shall notify the OWNER of the starting date and execution of the WORK shall commence in accordance with the General Specifications as included with the Agreement and the Technical Specifications as presented herein. CONTRACTOR shall provide the OWNER with a schedule for the proposed WORK in calendar, bar chart, or critical path schedule form.

PART 4 - FORM OF AGREEMENT

4.01 CONTRACT AGREEMENT

The CONTRACT agreement will be in the form of that included in the bid package. This agreement may be administered as a Division of Purchasing Purchase Order. If administered as a purchase order, the purchase order will reference the bid package, and all the terms and conditions of the solicitation, including the contract form, general and supplementary conditions, technical specifications, and addenda will apply to the agreement.

4.02 CHANGES TO THE AGREEMENT

- A. When these services are procured by an agency contract, OWNER shall require amendments to the Agreement to be in the form of a change order, signed by both parties. When these services are procured by a Division of Purchasing Purchase Order, amendments shall be on Form DP-28 "Request for Purchase Order Cancellation or Change."
- B. Change orders or Form DP-28's shall become attached to and part of the Agreement under the terms of the Agreement with changes as stipulated on the change order or Form DP-28. Change orders or Form DP-28's shall not release the CONTRACTOR from any other terms or conditions that apply and are a part of the Agreement.
- C. Any additional WORK must be authorized by the OWNER and must be in the form of a contract change order or Form DP-28 as an amendment to the Agreement. The change order or Form DP-28 must be fully executed prior to the CONTRACTOR undertaking any additional WORK.

PART 5 - MEASUREMENT, PAYMENT, AND WORK INCLUDED

5.01 GENERAL

- A. The WORK included and measurement of and payment for that WORK shall be as described within each Section of the Technical Specifications and Supplementary Condition #6.
- B. Total contract amount, including any change orders, shall constitute full compensation for the WORK.
- C. Payments shall only be made for those items shown on the Bid Schedule. All other costs or incidentals

Section 0200

shall be reflected in the Bid Schedule or shall be paid at the CONTRACTOR's expense.

5.02 RETAINAGE

Unless stated otherwise in the specific section of the Specifications, all final bid item payments shall have ten percent withheld as retainage until successful completion of the CONTRACT. The retainage shall be made from each progress payment, and be released upon written Final Acceptance by the OWNER.

5.03 PENALTIES

- A. The OWNER reserves the right to levy a penalty payment for areas unnecessarily disturbed during the WORK. These areas include any archeological sites, paleontological sites, or undisturbed upland vegetation areas.
- B. The penalty for unnecessary disturbance to archeological sites, paleontological, or upland vegetation areas will be based on the per acre disturbance at the CONTRACTOR's bid amount for revegetation of adjacent sites.

END OF SECTION 0200

0220 Mobilization/Demobilization

PART 1 - GENERAL

WORK INCLUDED

The item for payment for mobilization/demobilization is intended to compensate the CONTRACTOR for operations including, but not limited to, those necessary for the movement of personnel, equipment, supplies, and incidentals to and from the project area, movement between the various mine sites included within the project area, and for all other WORK and operations which must be performed or costs incurred prior to the initiation of meaningful work at the site.

PART 2 - PRODUCTS

2.01 DRINKING WATER AND SANITARY FACILITIES

CONTRACTOR shall provide and maintain safe drinking water and sanitary facilities for all employees, all subcontractors' employees, and the OWNER. Drinking water and sanitary facilities shall comply with all regulations of the local and state departments of health and be approved by the OWNER.

2.02 COMMUNICATIONS

CONTRACTOR shall provide OWNER's onsite inspector or representative with an onsite communication system for the OWNER's exclusive use for the full duration of the project construction. The communication system shall be a cellular telephone and cellular service, or equivalent. Cell phones shall have sufficient power to allow clear transmissions from a majority of the project area. Any necessary accessories, such as antennas, batteries, battery charger, cigarette lighter adapter, and operating manuals, shall be provided. This item is not a separate bid or pay item; all telephone costs are subsidiary to and should be included in the overall cost for Mobilization/Demobilization.

PART 3 - EXECUTION

3.01 PREPARATION

- A. Preparation of the WORK shall include obtaining all permits and other such incidentals as necessary to execute the WORK. CONTRACTOR shall select from a pre-determined set of staging areas identified in the specifications and secure all necessary permits, including camping permits, from the applicable land management agency.
- B. Permits shall be posted or readily available prior to start of construction activities as required by municipal, State, or Federal regulations.

3.02 EXECUTION

Upon receipt by the CONTRACTOR of due NOTICE TO PROCEED, the CONTRACTOR shall notify the OWNER of the starting date and execution of the WORK shall commence in accordance with the General Specifications as included with the Agreement and the Technical Specifications as presented herein. CONTRACTOR shall provide the OWNER with a schedule for the proposed WORK in calendar, bar chart, or critical path schedule form.

PART 4 - MEASUREMENT AND PAYMENT

4.01 BASIS FOR PAYMENT

No partial payments will be made for multiple equipment moves or for moving between sites. Only the following partial payment shall be made of the total lump sum for mobilization/demobilization. Payment of sixty percent (60%) of total lump sum for mobilization will be made when 10 percent of the overall BID PRICE has been earned from other bid items. Payment of the remaining forty percent (40%) of the total lump sum for demobilization will be made after issuance of the Certificate of Substantial Completion at the completion of CONTRACT. Payments for mobilization/demobilization are not subject to withholding of retainage. The BID PRICE for mobilization/demobilization will also include those incidental costs as required by the CONTRACTOR in order to commence the WORK such as permits, insurance, and other such items as may be required to perform the WORK.

4.02 MEASUREMENT

Measurement will be based on the amount of the WORK performed and accepted and approved by the OWNER. When 10 percent of the WORK has been earned, the CONTRACTOR may submit on the invoice sixty percent (60%) of the BID PRICE for mobilization/demobilization as set forth above. On completion of the CONTRACT and issuance of the Certificate of Substantial Completion, the CONTRACTOR may claim the remaining forty percent (40%) of the BID PRICE for mobilization/demobilization.

4.03 PAYMENT

The BID PRICE for mobilization/demobilization will be paid once only and will include complete mobilization, demobilization, and moves between sites regardless of the number of times equipment is moved or additional equipment is transported to or from the construction site. The BID PRICE will also include those incidental costs as required by the CONTRACTOR in order to commence with the WORK such as permits, insurance, and other such items as may be required to perform the WORK.

END OF SECTION 0220

0230 Access Improvements

PART 1 - GENERAL

1.01 WORK INCLUDED

This item for payment is to develop and maintain site access or improve existing site access. Improvement is limited to the extent required to complete WORK at each mine site. It is not the intent of this WORK to construct roads. The WORK shall include temporary site access to reach sites of construction, and maintenance of existing permanent roads that must be used for movement of equipment, materials and labor. CONTRACTOR shall minimize disturbance resulting from site access improvements. In areas in which a passable road did not previously exist, the CONTRACTOR shall reclaim the access improvement in accordance with this Section upon completion of the WORK. Existing, permanent roads shall be left in a condition at a minimum as good as that prior to the WORK.

1.02 SUBMITTALS

The CONTRACTOR shall submit *with the Bid Proposal* a description of access improvements to be performed at each site and shall not deviate from this plan without the written approval of the OWNER. For sites not easily accessible, the CONTRACTOR may choose to gain equipment access, do hand work, or access with a helicopter.

1.03 RELATED WORK

- A. Section 0250: Mine Closures
- B. Section 0253: Bat Gate & Shaft Grate Installation
- C. Section 0270: Site Grading/Earthwork
- D. Section 0300: Specific Site Requirements

PART 2 - PRODUCTS

MATERIALS

- 2.01 CONTRACTOR may utilize local resistant materials or import road base materials to maintain access and minimize damage to the environment. If wet weather conditions prevail, OWNER may require CONTRACTOR to stockpile road base material at work sites in order to maintain the schedule.
- 2.02 CONTRACTOR may choose to temporarily place corrugated steel pipe or other conveyance structures in the access improvement. The CONTRACTOR shall comply with Section 0280: Drainage Control and Stream Protection unless otherwise directed by the OWNER.

PART 3 - EXECUTION

GENERAL

- 3.01 The location, alignment and grade of any temporary access improvement shall be in accordance with Section 0300: Specific Site Requirements, subject to Section 0280: Drainage Control and Stream Protection, and subject to the approval of the OWNER.
- 3.02 Temporary access improvements shall be constructed so as to minimize disturbance to existing vegetation, and to minimize potential erosion.
- 3.03 Where temporary site access crosses perennial or intermittent streams, the CONTRACTOR shall maintain the drainage by providing a temporary crossing in accordance with Section 0280: Drainage Control and Stream Protection, and subject to the OWNER'S approval. Upon completion of the WORK, CONTRACTOR shall restore drainages to approximate original condition, subject to the acceptance and approval of the OWNER.
- 3.04 When no longer required by the CONTRACTOR, temporary access improvements will be reclaimed in the following manner. Existing passable access shall be left in or returned to approximate original condition. Access previously impassable or newly created access shall be restored to blend with surrounding contours

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and reclaimed for erosion control as shown on the Drawings. The surfaces of such access shall be scarified and revegetated in accordance with Section 0290: Revegetation.

PART 4 - MEASUREMENT AND PAYMENT

4.01 MEASUREMENT

Measurement shall be per mine site as access improvement WORK is completed, accepted and approved by the OWNER. Measurement shall be consistent with the BID PRICE. The OWNER's approval of mine site access development will be authorization for payment of 50 percent of the pay item which will also include consideration for maintenance of temporary access to the site throughout the WORK. The OWNER's acceptance of all WORK completed and approval of the temporary site access reclamation for the site will be authorization for payment of the balance of this pay item.

4.02 PAYMENT

Payment for maintenance of existing paved and gravel-surfaced roads will be consistent with the BID PRICE for this item. Payment of 50 percent of the BID PRICE will be made upon receipt of the invoice submitted by CONTRACTOR. The balance of 50 percent of the BID PRICE may be invoiced and paid after approval of the site WORK and approval of site access reclamation. Payment of this item is subject to withholding of the retainage.

END OF SECTION 0230

0250 Mine Closures

PART 1 - GENERAL

1.01 WORK INCLUDED

This section describes the various types of mine closures to be used to seal mine openings. The WORK described in this Section also includes preparation, excavation and backfilling of subsidence openings into mine voids. The requirements for furnishing and placing stone and block closures and backfill closures are described here and are indicated on the Drawings. The WORK includes all preparation, labor, materials, furnishing and placing materials, equipment and incidentals necessary to complete the mine closures.

1.02 SUBMITTALS

- A. CONTRACTOR shall submit *with the bid proposal* a list of equipment to be used to complete this section of the WORK.
- B. CONTRACTOR shall submit *with the bid proposal* the proposed construction procedures in writing.
- C. CONTRACTOR shall submit *after the award of CONTRACT and before Notice to Proceed* a copy of the certification of the Certified Person (see Part 1.04.E below) for approval by the OWNER.
- D. CONTRACTOR shall furnish the OWNER a set of as-built drawings upon completion of the WORK which shall be required for release of the retainage.

1.03 RELATED WORK

- A. Section 0251: Cast-In-Place Concrete
- B. Section 0252: Concrete Reinforcement
- C. Section 0253: Bat Gate and Shaft Grate Installation
- D. Section 0290: Revegetation
- E. Section 0300: Specific Site Requirements

1.04 JOB CONDITIONS

PROTECTION

- A. CONTRACTOR shall exercise precautions appropriate to working near, over, or in areas prone to subsidence. Such known areas should be flagged by the CONTRACTOR prior to the commencement of the WORK. Personnel shall be informed of special safety procedures for equipment usage and general work in these areas.
- B. Personnel shall not enter any mine opening unless under the direction of the Certified Person.
- C. No personnel shall be allowed to work under an unsupported mine roof. Temporary support shall be installed under the direction of a Certified Person qualified to determine roof conditions.
- D. Smoking or any open flame in or within 100 feet of the mine openings is prohibited.
- E. Before any personnel enter any openings a check for explosive and toxic gases shall be made by a Certified Person (a qualified person with current certification to do such WORK under the General Safety Orders of Utah Coal Mines i.e. Mine Foreman and/or Fire Boss). Continuing checks shall be made throughout the closure operation by the Certified Person.
- F. CONTRACTOR shall inspect openings for old dynamite prior to construction activities.
- G. Personnel shall wear safety harnesses and be properly and securely anchored to a fixed anchor point while working within 15 feet of vertical openings, unless otherwise approved in writing by the OWNER.

PART 2 - PRODUCTS

A. CONCRETE BLOCK

Solid concrete block shall be high strength with a minimum compressive strength of 3,000 pounds per square inch. Hollow block used as shown on the Drawings must be concrete-filled.

B. BACKFILL

Backfill material shall normally consist of mineral soil, subsoil, or a blend of mineral soil and subsoil. Backfill material shall be free from combustible materials. This shall include but not be limited to wood, wood products, trash and vegetation.

C. MORTAR

Mortar shall be either Masonry Cement, 1:3 mix, Type N, or Portland Cement and Lime, 1:1:6 mix, Type N. Precautions must be taken to prepare and protect mortar during cold weather. Mortar will have a 28 day minimum compressive strength for 2-inch cubes of 700 psi.

D. CONCRETE

Concrete shall be in accordance with Section 0251: Cast-in-Place Concrete.

E. REINFORCEMENT

Reinforcement shall be in accordance with Section 0252: Concrete Reinforcement.

F. FILTER CLOTH

Filter cloth shall be a non-woven geotextile fabric having a minimum thickness of 15 mil in accordance with ASTM D-1777 and a minimum permeability of 10^{-2} centimeters per second, such as Fibertex 150 manufactured by Crown Zellerbach, or an approved equivalent.

G. TEMPORARY MINE ROOF SUPPORTS

1. Mine roof supports shall be wooden posts or approved equal that have the following minimum requirements:
 - a. 4½ inch diameter.
 - b. Spruce or pine with a specific gravity between 0.35 and 0.48.
 - c. Moisture content between 10.8 and 14 percent.
 - d. Allowable unit stress of extreme fiber in bending of 750 psi for spruce or 700 psi for pine.
 - e. Maximum diameter of knots on one surface no greater than ½ inch.
2. Caps and wedges shall be used for installation of roof supports.
3. Mine roof jacks may be substituted for wooden posts with the approval of the OWNER.

PART 3 - EXECUTION

3.01 PREPARATION FOR MINE CLOSURES

- A. CONTRACTOR shall clear and grub the face area of mine openings of all vegetation, wood and debris to the extent shown on the Drawings. CONTRACTOR shall inspect, scale and secure the mine openings to a degree which will make the WORK safe to perform. Particular care shall be taken to make WORK conditions safe in instances where, due to the condition of the opening and the probability of loose soil and rock above the opening, there is danger of a rockfall. For openings to be backfilled the CONTRACTOR shall excavate the brow back to a stable condition prior to initiation of closure operations, unless otherwise directed by the OWNER.

- B. The roof and ribs of the mine openings may contain loose rock. Such loose materials shall be scaled by use of tools or equipment extended into the openings before personnel enter the opening for placement of mine roof supports or for any other reason.
- C. Loose, unstable materials typically exist just inside the opening. These materials shall be removed from the working surface inside of the mine openings so a solid working surface exists on which to build the mine closures. The working surface shall be inspected, accepted and approved by the OWNER.
- D. Temporary mine roof supports shall be installed on no more than four foot centers before any personnel enter the opening for construction purposes.
- E. CONTRACTOR shall construct work pad as required.
- F. Bat Exclusion: CONTRACTOR shall exclude bats from mine workings prior to installation of permanent closures as required in these specifications. The exclusion process must be conducted during the warm season when bats are flying but before young bats are born (warm season and birthing dates vary depending on geographic location and should be specified by the bat biologist), or in the fall prior to the swarming behavior that leads to hibernation. An attempt to close mines before the warm season may entomb hibernating bats that cannot fly. The preferred method for exclusion of bats from an adit or shaft is to block the portal or shaft opening with 1-inch diameter chicken wire. The wire permits bats to escape and fly out of the mine, but they will not fly back through the wire into the mine. The wire should be placed over the entrance at least a week in advance and shall be left in place until the date of the closure. The wire should be removed during the day and closure should take place immediately.

3.02 INSTALLATION OF MINE CLOSURES

A. BLOCK WALL CLOSURE

1. CONTRACTOR shall construct walls in the adits as specified in Section 0300: Specific Site Requirements. Variation of the location of the walls will be allowed so that CONTRACTOR can select a suitable location for the walls, with approval of OWNER. Parameters for suitable location of the walls shall be as follows:
 - a. Select an area in which competent rock is found in the back, ribs, and sill (roof, walls, and floor) of the adit.
 - b. Utilize irregularities in the ribs and back where possible such that the wall can be "keyed" into the rock to provide more strength and integrity to the wall.
 - c. Locate the wall as far into the adit as is reasonable to reduce visibility of the wall from outside the opening and a maximum of 10 feet with competent brow unless otherwise approved by the OWNER. Allowance for the location of the walls is discussed in Section 0300. Where the remaining portion of the adit left open is unstable or unsafe, backfill shall be placed from the brow to the wall unless otherwise approved by the OWNER.
2. CONTRACTOR shall scale down back and ribs (roof and sides) of the adit, removing any loose rock from the area in which the wall is to be constructed and along access to bulkhead. Any mud, clay, moss or other materials shall be removed where the wall is to be constructed which would be deleterious to the integrity of the wall and would not allow good bonding of the mortar to the rock. CONTRACTOR shall excavate sill (floor) of adit to solid rock where the wall is to be constructed. Drainage shall be provided for any water that tends to accumulate on either side of the bulkhead as described in Part 3.02.A.6 of this Section. Excavated materials shall be cast into the adit behind the bulkhead to minimize surface disturbance in the area.
3. Concrete foundations shall be constructed unless competent foundation rock is encountered which is not friable, subject to deterioration, or otherwise unacceptable and the foundation rock is approved by OWNER. The foundation shall be a minimum of 18 inches in thickness and 30 inches wide to accommodate the 2-foot thick wall. The foundations shall be made of concrete as specified in Section 0251: Cast-In-Place Concrete. Concrete shall be reinforced with No. 4 rebar as shown on the Drawings and as specified in Section 0252: Concrete Reinforcement.

4. CONTRACTOR shall construct walls from foundation or solid rock base if approved by OWNER. Walls shall be constructed of concrete block, native stone, or imported stone. Concrete block walls shall be a minimum of 16 inches thick. Native stone and imported stone walls shall be constructed to a minimum thickness of 2 feet at the base and 18 inches at the top. The wall shall be free of any voids within the wall structure and shall be 100 percent rock and mortar construction. Hollow block bricks, when used, shall be concrete filled. Mortar shall be free of voids and air pockets and shall be firmly packed along ribs and roof of the opening to maintain the integrity of the wall and to make an effective seal.
5. CONTRACTOR shall use the natural shape and irregularities of the mine opening to "key" the wall to the mine opening to provide strength and protection of the wall from damage due to vandalism.
6. Designated openings shall require the installation of a drainage pipe. The drainage pipe shall be located near the base of the stone wall within 15 inches of the intersection of the floor material in the approximate center of the wall or near a low spot along the base. The drain pipe shall extend through the foundation or the base of the wall and a trap shall be formed out-by the wall near the brow as shown on the drawings. The drain pipe shall protrude a minimum of 12 inches on either side of the wall and shall be made from 6-inch nominal diameter, Schedule 80 PVC pipe. The inside end of the pipe shall be firmly supported by block or natural stone. Both the inside and outside ends of the pipes shall be clear of any obstructions which would impair or restrict flow. Both ends of the pipe shall be covered with a protective screen mesh. Gravel shall be installed over the ends of the pipes to protect the pipe from roof falls and plugging. Gravel shall form a drain and cover the top of the pipe with a minimum of 8 inches of material. The gravel drain shall be no less than 18 inches wide and shall extend to and from the end of the pipes a minimum of two feet. Gravel used in the drain channels shall be selected material ranging from 3/4 to 6 inch in size. CONTRACTOR shall extend a drainage channel away from the bulkhead if it is situated such that water could impound near the base.
7. As further protection, grout shall be used to seal the base of the bulkhead and shall be placed to partially cover the drainpipe. Grout should extend one foot to either side of the base of the wall.
8. The portal areas shall be cleared of all building materials, trash and debris. The site shall be left in a clean and finished appearance.
9. Revegetation of sites shall be completed as specified in Section 0290: Revegetation.
10. Final acceptance of the WORK shall be subject to field inspection by the OWNER.

B. BACKFILL CLOSURE

1. CONTRACTOR shall backfill mine openings as described in Section 0300: Specific Site Requirements or as directed by the OWNER. Backfill shall contain sufficient fines to minimize void space.
2. Drainage lines shall be extended, if required, to the projected limits of the backfill. The drain line shall be placed on a minimum slope of 2 percent and firmly bedded with well-compacted sand and gravel. The end of the pipe shall be protected as described in Part 3.03.A.7.
3. Backfill shall be placed in mine openings to minimum dimensions described and in a manner to eliminate voids. CONTRACTOR shall construct a work pad in front of the opening as required to allow for uniform access to ram the backfill into the opening utilizing a ram or backhoe bucket. Care should be taken not to push the wall out if one has been installed. Materials which require compaction shall be tamped to achieve compaction such that any additional settlement of the fill will not result in reopening of the portal.
4. Final shape of the fill shall be mounded over the opening and blended into surrounding contours as much as practical. Runoff and snowmelt shall be diverted away from and across the fill by use of small channels containing light riprap so that the fill does not erode or impound water.

5. Revegetation of sites shall be completed as specified in Section 0290: Revegetation.
6. The portal areas shall be cleared of all building materials, trash and debris. The site shall be left in a clean and finished appearance.
7. Final acceptance of the WORK shall be subject to field inspection by the OWNER.

C. HAND BACKFILL CLOSURE METHOD

1. Hand Backfill Closure Method shall be used only in places inaccessible to heavy equipment as designated in Section 0300: Specific Site Requirements. The backfill requirements of Section 0250: Mine Closure, Part 3.03.B apply except as provided for equipment or approved by the OWNER.
2. CONTRACTOR shall obtain backfill materials from areas specified in Section 0300: Specific Site Requirements, or as directed by the OWNER.
3. Backfill materials shall be placed in 12 inch thick horizontal lifts in the locations and to the extent shown on the Drawings.

D. WALL AND BACKFILL CLOSURE

Designated mine openings shall be backfilled after the installation of the wall. Bring backfill to the grades shown in the Drawings or as designated in Section 0300: Specific Site Requirements to blend with natural contours. Walls shall be installed per Section 0250, 3.02 A, B, and C.

E. VERTICAL SHAFT BACKFILL CLOSURE METHOD

1. Timber and debris shall be removed from openings to the extent safely possible.
2. CONTRACTOR shall inspect the collar of the opening and determine required precautions for safe completion of WORK. Installation of a short conveyor belt or a ramp may be required.
3. Shaft shall be filled with backfill material to a height above the collar of the shaft to provide drainage away from the opening. The backfill shall be well-graded with a maximum particle size of approximately 2 feet in diameter.
4. Filter cloth shall be installed as shown on the Drawings.
5. CONTRACTOR shall place and compact the backfill starting five feet below the surface. Suitable compaction energy shall be applied in this zone in one-foot lifts by either pressure from the back of the backhoe bucket or other means accepted and approved by the OWNER. The upper five feet of backfill shall not contain any material that may have elevated sulfate concentrations.
6. The backfill shall be mounded a minimum of 24 inches above the adjacent grade, or shall be sloped at 3h:1v and extend a minimum 3 feet horizontal distance beyond the edge of the shaft.

3.03 MINE CLOSURE GRADING

- A. CONTRACTOR shall bring backfill to the grades shown on the Drawings or to blend with natural contours. Backfill shall be free of voids and shall be compacted by mechanized equipment or hand-held mechanical compactors in one foot lifts.
- B. CONTRACTOR shall extend the drainage line (if required) to the projected limits of the backfill. The drain line shall be placed at a minimum slope of 2 percent and firmly bedded with well compacted sand and gravel. The end of the pipe shall be protected as described in Part 3.03.A.7.
- C. The backfilled slopes shall be covered with a minimum of 6 inches of soil/rock fill available on site from areas designated by the OWNER.
- D. Revegetation and mulching of the disturbed areas shall be performed in accordance with Section 0290:

Revegetation.

- E. Final shape and completeness of the WORK shall be subject to approval by the OWNER.

3.04 MINE LOCATION MONUMENTS

- A. CONTRACTOR shall install at each mine closure a permanent monument (aluminum survey cap). OWNER will provide and CONTRACTOR will install the survey cap.
- B. At backfill closures, monuments shall be installed on rebar stakes. Stakes shall be #5 (5/8 -inch diameter) rebar, normally 3 to 4 feet long. The rebar shall be securely anchored in the ground with the end extending above the final grade 2 to 6 inches. CONTRACTOR may opt to use soil plates, deadmen, bends, or other devices to ensure that the rebar is securely anchored. The exposed end of the rebar shall be squarely cut and free of bends, flaring, mushrooming, or burrs that would prevent proper seating of the survey cap. Seating of the cap onto the rebar shall be done taking precautions not to mar the text. Where site conditions permit and with approval of OWNER, monuments may be set directly into bedrock with epoxy resin as described below.
- C. At structural closures (bulkheads or steel grates), monuments may be set in concrete footers, grade beams, or seams while the concrete is wet or set in bedrock with epoxy resin. Installation in bedrock requires drilling a 1 1/4-inch diameter by 2 inch deep hole to receive the cap.
- D. The placement of the monument will be determined by the OWNER, but typically it will be centered in or adjacent to the mine opening for backfill closures. Monuments should not be placed where it is necessary to climb onto the closures to read them. Monument positioning should consider the potential for vandalism and the potential for siltation that could bury the cap. Monuments may be installed in by grate closures, but not so deep that they cannot be easily read.

PART 4 - MEASUREMENT AND PAYMENT

4.01 BASIS OF PAYMENT

Basis of payment for the WORK will be on the BID PRICE per opening for completion of all the WORK as described in this Section. Breakdown of the WORK into unit prices for individual mine openings shown in the Bid Schedule will be used in determining partial payment or adjustment of the total BID PRICE for this Section as the WORK progresses.

4.02 MEASUREMENT

Measurement for mine closures will be on the BID PRICE per mine opening. Measurement will be based on and compared to the dimensions and quantities identified on the bid sheets, these Specifications and Drawings. The OWNER will request intermediate measurements to determine progress of the WORK.

4.03 PAYMENT

- A. Payment for mine closures will be for each mine site at the BID PRICE. Payment will only be for those closures which are complete, accepted, and approved by the OWNER. No partial payments will be made for individual mine openings.
- B. Payment at the UNIT PRICE for additional quantities will be made for mine closures when final quantities are greater than 15 percent in excess of the estimated quantities shown on the bid sheet for a given mine site. Such unit price payment will require proof of additional quantities provided by the CONTRACTOR and approval of the OWNER, and shall be full compensation for the approved additional masonry or backfilling. Reduction of payment for lesser quantities of masonry or backfill will also be made by the OWNER for quantities greater than 15 percent below the estimated quantity shown on the bid sheet for a given mine. Such UNIT PRICE adjustment will require approval of the OWNER and will be full compensation for approved additional or reduced mine closure quantities.

0251 Cast-In-Place Concrete

PART 1 - GENERAL

1.01 WORK INCLUDED

Cast-in-place concrete shall be used in the WORK for mine closures. This Section provides the material standards, procedures and quality control that shall be required for cast-in-place concrete.

1.02 SUBMITTALS

A. Concrete

1. CONTRACTOR shall submit *with the Bid Proposal* laboratory reports indicating that the supplier's concrete ingredients meet requirements specified.
2. CONTRACTOR shall submit *before use of cast-in-place concrete in WORK* design mixes and laboratory test reports indicating that the concrete ingredients and proportions will result in concrete mixes meeting requirements specified.

B. Batch Tickets

CONTRACTOR shall submit, *with each batch delivered*, delivery tickets from the concrete supplier setting forth the following information:

1. Name of Supplier
2. Name of batching plant and location
3. Date
4. Serial number of ticket
5. Truck number and batch number
6. Contract number and location
7. Volume of concrete (cubic yards)
8. Maximum size of aggregate
9. Type and brand of cement
10. Weight of cement
11. Maximum size of aggregate
12. Weights of fine and coarse aggregates
13. Types and amounts of admixtures
14. Weight of water, or, alternatively, the water:cement ratio

1.03 RELATED WORK

- A. Section 0250: Mine Closure
- B. Section 0252: Concrete Reinforcement

1.04 QUALITY ASSURANCE

Design Criteria:

A. Portland Cement Concrete Mixture

Concrete for closures and structural slabs shall have a minimum compressive strength of 3,000 psi in 28 days. The concrete shall be proportioned in accordance with ACI 211. The type of cement used shall be Portland, Type II (ASTM C150). Air entrainment shall be furnished in all concrete. Air content shall be $5\% \pm 1\%$.

B. Formwork

As outlined in ACI 301, Chapter 4.

C. Reference Standards (Latest Editions)

1. ACI 211 Recommended Practice for Selecting Proportions for Normal Weight Concrete
2. ACI 301 Structural Concrete for Buildings
3. ACI 302 Guide for Concrete Floor and Slab Construction
4. ACI 304 Recommended Practice for Measuring, Mixing, Transporting and Placing Concrete
5. ACI 305 Recommended Practice for Hot Weather Concreting
6. ACI 306 Recommended Practice for Cold Weather Concreting
7. ASTM C 31 Standard Method of Making and Curing Concrete Test Specimens in the Field
8. ASTM C 33 Specification for Concrete Aggregates
9. ASTM C 39 Test for Compressive Strength of Cylindrical Concrete Specimens
10. ASTM C 94 Specification for Ready-Mixed Concrete
11. ASTM C 150 Specification for Portland Cement
12. ASTM C 172 Sampling Fresh Concrete
13. ASTM C 494 Specification for Chemical Admixtures for Concrete

PART 2 - PRODUCTS

MATERIALS

2.01 CEMENT

Cement shall be Type II Portland cement, conforming to ASTM C 150, unless otherwise approved by the OWNER.

2.02 FINE AND COARSE AGGREGATE

Shall conform to ASTM C 33

2.03 WATER

Water shall be potable.

2.04 ADMIXTURES

A. Chemical Admixtures: ASTM C 494

B. Calcium Chloride will not be permitted.

2.05 FORMWORK

Form ties, fabricated so that portion remaining in the structure is at least two inches back from concrete surface.

PART 3 - EXECUTION

3.01 FORMWORK

A. Forms shall be provided for all concrete except where instructed by the OWNER.

B. Form surfaces which will be in contact with concrete shall be treated with an effective bond-breaking form coating. Such coating shall also effectively prevent the absorption of water from the concrete by plywood forms.

3.02 MIXING

A. Concrete may be mixed at the job site or delivered as "ready mix" at the CONTRACTOR's option.

B. If mixed on the site, equipment and mixing procedures shall conform to ACI 301, Chapter 7.

- C. If "ready mixed" concrete is used, it shall be mixed and transported in accordance with ASTM C 94.

3.03 HOT WEATHER CONCRETING

Conform to the requirements of ACI 305

3.04 COLD WEATHER CONCRETING

Conform to the requirements of ACI 306

3.05 PLACING

- A. Concrete shall be placed in accordance with the requirements of ACI 304, Chapter 6.
- B. Concrete shall be placed in forms in horizontal layers of 12 to 18 inches as near as possible to its final location.
- C. Each horizontal layer shall be consolidated by using a mechanical vibrator. The vibrator shall extend into the underlying layer to weld the two layers together. The use of vibrators to move concrete horizontally within the forms shall not be permitted.
- D. Concrete shall not be allowed to free fall more than 6 feet within the confines of the form work. Use tremies, hoses, chutes, or other devices where greater distance is required.

3.06 FIELD QUALITY CONTROL

The OWNER may require random samples for the purpose of quality control. CONTRACTOR shall take sample specimens of the concrete in cylindrical containers in accordance with ASTM C 31 at the point of deposit as follows:

- A. One sampling, consisting of a minimum of three cylinders, shall be made for each batch of ready-mix concrete. At least one sampling shall be made for each 50 cubic yards of concrete or for each day of placing.
- B. The samples shall be taken in accordance with ASTM C 172.
- C. All three sample cylinders will be taken at the same time: one cylinder to be used for a 7-day test and two for a 28-day test. The average of the 28-day test results will be used for determining acceptance.
- D. The 7-day, and 28-day tests shall be performed in accordance with ASTM C 39.

3.07 CURING

Comply with the requirements of ACI 301.

3.08 PATCHING

All damaged and honeycombed areas shall be repaired in accordance with ACI 301, Chapter 9.

3.09 FINISH

- A. Formed Surfaces - After removal of forms, patch tie holes and defects. Remove fins from surfaces.
- B. Unformed Surfaces - Screed surfaces to indicated dimensions.

3.10 CONSTRUCTION JOINTS

- A. Before placement of fresh concrete, CONTRACTORS shall clean reinforcing steel, welded wire fabric and joint surfaces of hardened concrete.

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- B. Construction joints shall be prepared and bonded as provided in Section 6 of ACI 301 for elevated slabs and ACI 302 for slabs on grade.

PART 4 - MEASUREMENT AND PAYMENT

Measurement and payment for cast-in-place concrete will be per the BID PRICE per mine site in Section 0250: Mine Closure.

END OF SECTION 0251

0252 Concrete Reinforcement

PART 1 - GENERAL

1.01 WORK INCLUDED

Concrete reinforcement is used in various parts of the WORK, described in Part 1 of Section 0251: Cast-in-Place Concrete. This section describes the requirements for concrete reinforcement in concrete structures. Placement of concrete reinforcement shall be as shown on the Drawings.

1.02 RELATED WORK

- A. Section 0250: Mine Closure
- B. Section 0251: Cast-in-Place Concrete

1.03 QUALITY ASSURANCE

Reference Standards (Latest Editions)

- A. ACI 318 Building Code Requirements for Reinforced Concrete
- B. ASTM A 615 Specifications for Deformed and Plain Billet-Steel Bars for Concrete Reinforcement

PART 2 - PRODUCTS

MATERIALS

- 2.01 Reinforcing steel shall be made from plain or deformed new billet stock and shall conform to ASTM A 615, Grade 60.
- 2.02 Reinforcement chairs, hangers, spacers, or other supports shall be non-corrosive.
- 2.03 All reinforcement shall be free from oil, mill scale and excessive rust, or other coatings that will destroy or reduce bond.

PART 3 - EXECUTION

INSTALLATION

- 3.01 Reinforcement shall be accurately formed to the dimensions indicated.
- 3.02 All bars shall be bent cold and shall not be straightened in a manner which will injure the material.
- 3.03 Bars shall be spaced and positioned as shown on the Drawings.
- 3.04 Three (3) inches of concrete cover shall be provided for main reinforcement.
- 3.05 Reinforcement shall be spliced and tied in accordance with the requirements of ACI 318, and as shown in the Drawings.

PART 4 - MEASUREMENT AND PAYMENT

No separate measurement and payment shall be made for concrete reinforcement. OWNER will ascertain that concrete reinforcement meets the requirements of this section and is sized and placed in accordance with the Drawings and these Specifications. OWNER's approval for pay items including concrete reinforcement will require the OWNER's acceptance and approval of the concrete reinforcement.

END OF SECTION 0252

0253 Bat Gate & Shaft Grate Installation

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. CONTRACTOR shall construct steel gates or grates in the portals and shafts as specified in Section 0300: Specific Site Requirements and in accordance with this section. The purpose of the gates and grates is to maintain airflow and wildlife access while preventing human access into the mine.
- B. This work shall consist of fabricating and installing steel bat gate or rebar shaft grate closures within specific mine adits and shafts. Work shall include excavation of loose material and trimming of the mine opening; drilling, placing, and grouting anchors; concrete footers; and fabrication, installation, and welding of steel gates or grates in accordance with these specifications. Refer to the Drawings for construction details.
- C. The dimensions shown on Standard Drawings are generic and based upon a standard design. Actual dimensions will be determined by the mine opening size and site preparation. The CONTRACTOR shall make the necessary measurements and adjustments to ensure that a competent gate or grate is constructed that will prevent human access. Very large or irregularly shaped openings may require custom fitting or modification of the generic design in consultation with the OWNER. Minor variations in the location of the bat gate will be allowed so that the CONTRACTOR may select a stable location for the bat gate, with the approval of the OWNER.

1.02 RELATED WORK

- A. Section 0250: Mine Closure
- B. Section 0251: Cast-in-Place Concrete
- C. Section 0252: Concrete Reinforcement

PART 2 - PRODUCTS

MATERIALS

2.01 BAT GATE COMPONENTS

All steel used for bat gate closure construction shall be 12-14% manganese steel (Manganal® steel or equivalent). Round stock used for horizontal crossbars, perimeter supports, anchor pins, and supplemental vertical bars shall be #8 bars (1 inch diameter). Flat stock used for vertical supports, roof anchor plates, gussets, and lock boxes shall be 4" x ½" plate. Welding rod shall be suitable for use on manganese steel.

2.02 CORRUGATED METAL PIPE (CMP)

Corrugated metal pipe shall be fabricated of 16 gauge (0.064-inch thickness) steel and shall have 2½-inch by 2-inch corrugations. Fabrication shall be riveted (5/16-inch/ single rivet), welded or helical. Continuous lap seam and continuous welded seam shall be considered equivalent in strength to two fasteners per corrugation seam. Fabrication must meet AWS "Structural Welding Codes" and AASHTO 1977 Standard Specifications for Highway Bridges. CMP galvanization shall meet the requirements of ASTM A386 for assemble products for ASTM A123 for rolled, pressed, and forged steel shapes. Galvanizing repair paint shall meet specification MIL-P-21035. All pipe couplings and hardware shall be compatible with CMP.

2.03 REBAR SHAFT GRATE COMPONENTS

Steel used for shaft grate crossbars and anchor pins shall be mild steel rebar meeting the requirements of ASTM A 615. Bars shall conform to Grade 60. Rebar used for shaft grate crossbars and anchor pins shall be #8 bars (1 inch diameter).

2.04 CONCRETE REINFORCEMENT

Steel used for concrete reinforcement shall be mild steel rebar meeting the requirements of ASTM A 615.

Bars other than ties shall conform to Grade 60. Ties shall conform to Grade 40 or Grade 60. Rebar used for concrete reinforcement shall be #4 bars ($\frac{1}{2}$ inch diameter). All reinforcing steel shall be free from rust, scale, or other coating that will destroy or reduce the bond with the cement-grout.

2.05 CEMENT-GROUT

Cement-grout shall consist of a mixture of sand, aggregate, and cement capable of attaining a compressive strength of 3,000 psi in 28 days. Maximum size of coarse aggregate shall be $\frac{3}{4}$ inch.

2.06 EPOXY RESIN GROUT

Epoxy resin grout shall conform to the requirements of ASTM C881, Type IV, grade 3.

2.07 PADLOCKS

Padlocks for locking bat gates shall have a minimum $\frac{3}{8}$ " diameter shackle. Padlocks shall be heavy duty, such as the Master® No. 5D or equivalent. All locks shall be keyed the same.

PART 3 - EXECUTION

3.01 GENERAL

CONTRACTOR shall construct steel gate closures in adits and steel grate closures in shafts as specified below, as shown on the Drawings, and as specified in Section 0300: Specific Site Requirements. The final design, fabrication, and erection of the gate or grate closure shall conform to the guidelines established with these specifications and the drawings. The final design shall be the responsibility of the CONTRACTOR, subject to OWNER's approval.

3.02 BAT GATE INSTALLATION

- A. Location. Variation of the bat gate closure location will be allowed so that the CONTRACTOR can select a suitable location as approved by OWNER. Parameters for suitable location shall be as follows:
 1. Select an area in which competent rock is found in the roof, ribs, and floor of the adit.
 2. Utilize smooth, non-fractured faces in the ribs and roof, where possible, such that the gate can be "keyed" into the rock to provide more strength and integrity to the closure.
 3. Locate the bat gate closure a minimum of three feet into the adit or as approved by the OWNER.
- B. Preparation. The CONTRACTOR shall scale down the roof and ribs of the adit, removing any loose rock from the area in which the bat gate closure is to be constructed and along access to the closure. The portal shall be cleaned and shaped as directed by OWNER. Historic structural features shall be preserved and maintained.
- C. The concrete footer shall be poured in a trench excavated to the dimensions shown on the Drawings. Concrete shall be reinforced with #4 ($\frac{1}{2}$ -inch) rebar on 12-inch centers with a minimum 2-inch concrete cover on all surfaces. Concrete shall not be poured until the gate steel and rebar have been installed. Concrete shall be mounded as necessary so that the gap between the top of the footer and the bottom crossbar of the gate is no larger than 4 inches. Forms will not be required unless called for by sloping conditions or deep unconsolidated floor material. If used, forms shall be sufficiently braced to prevent movement or dislocation during or after setting the gate steel and rebar in place. Forms shall be removed upon completion of the closure. Concrete construction shall be done in accordance with Section 0251: Cast-In-Place Concrete and Section 0252: Concrete Reinforcement.
- D. Anchor pins shall be doweled into the adit walls a minimum of 12 inches and grouted into place with either cement or epoxy resin. The CONTRACTOR shall determine the means of drilling into the rock and submit the method to the OWNER for approval prior to the start of the drilling operations. Anchor pins shall protrude from the adit ribs to attach the perimeter supports and roof anchor plates. Anchor pins shall be fillet welded to the perimeter bars. Roof anchor plates shall be 4 inches by 8 inches and

welded with a continuous bead to the top of the vertical supports and the anchor pins. There shall be at least two anchor pins on each side of the adit and at least one pin for each roof anchor plate. Anchor pins shall be located in competent rock affording the most secure placement. Anchor plate and pin locations and dimensions may be adjusted to fit site conditions with approval of OWNER.

- E. Perimeter bars shall be fillet welded to the anchor pins to provide a continuous steel lining on the adit ribs. Perimeter bars shall be bent or cut into segments to conform closely to irregular surfaces, with a maximum gap of 6 inches between the rib and the bar. If cut into segments, ends of segments shall be butt-welded to each other to form a continuous piece. Perimeter bars shall be installed on the outby side of the gate or as directed by OWNER. However, the perimeter bar at the position of the removable locking bar (crossbars 4 and 5, perimeter bar welded to crossbars 3 and 6) must be on the inby side of the gate.
- F. The vertical supports shall have 1½ inch diameter holes at the required spacing to accept the horizontal crossbars with a minimum of play. Vertical supports shall extend into the concrete footer and shall be positioned as close to the adit ribs as possible, with a maximum gap of 16 inches between the rib and the vertical support. Vertical supports shall be plumbed as directed by OWNER. The tops of the vertical supports shall be welded to the roof anchor plates with a continuous bead.
- G. Horizontal crossbars below a height of 48 inches above the top of the footer shall be spaced on 5-inch centers for a maximum gap between bars of 4 inches. Horizontal crossbars over 48 inches high shall be spaced on 6½-inch centers for gaps between bars of 5½ inches. With vertical supports and supplemental vertical bars in place, no opening in the bars below 48 inches high shall be larger than 24 inches by 4 inches. There shall be at least one opening in the top tier of bars that is 24 inches by 5½ inches, but no opening in the bars above 48 inches high shall be larger than this. Ends of horizontal crossbars shall be installed to within one inch of the adit rib surface. Except for the removable locking bar, horizontal crossbars shall be fillet welded at each intersection with the perimeter bars and supplemental vertical bars and spot welded at each intersection with the vertical supports.
- H. Supplemental vertical bars shall be installed on the outby side of the horizontal crossbars on 24½-inch centers as necessary so that no gate opening is greater than 24 inches wide. Supplemental vertical bars shall be fillet welded to horizontal crossbars at each intersection. Supplemental vertical bars shall extend down to the concrete footer.
- I. The lock box shall be constructed to the shape and dimensions shown on the drawings with fillet welds at all joints. The box shall be welded onto the vertical support at the position of the fourth and fifth horizontal crossbars from the bottom. Tolerances for the lock mechanism construction shall be sufficient to prevent vandals from accessing the padlock with common hand tools. Supplemental shields may be required to protect the mechanism.
- J. The fourth and fifth horizontal crossbars shall be welded together with spacers and gussets to form a single removable, lockable unit as shown on the Standard Drawings. Gussets 4 inches square shall be fillet welded to the crossbars and spacers on both sides with a continuous bead. The lockbox ends of the crossbars shall be shaped as shown on the drawings to accept the padlock. The free ends of the crossbars of the removable unit, when installed, shall not extend beyond the vertical support more than 18 inches. Any remaining gap between the ends of the removable crossbars and the adit rib shall be filled with immovable crossbars and vertical bars as required, following the same pattern as the rest of the gate.
- K. Upon completion, soil or rock excavated for the closure preparation and footer trench shall be replaced or scattered to blend with the surroundings. The portal area shall be cleared of all construction materials, formwork, and construction-generated trash and debris. The site shall be left with a clean and finished appearance.
- L. All horizontal crossbars shall be continuous. Joints, if required, shall be butt joints, with bar ends welded to each other to form a continuous piece.
- M. Additional bars or plates may be required to close gaps due to irregularities in the adit rib surface or as supplemental supports, gussets, or lock shields.
- N. All field welds shall be in accordance with the requirements of the American Welding Society (AWS)

D.1.1.

- O. Variation in the generic design or custom fitting may be required to accommodate site-specific conditions. Section 0300: Specific Site Requirements may specify alternate materials, dimensions, or design modifications for specific mine openings.

3.03 REBAR SHAFT GRATE INSTALLATION

- A. Location. Variation of the location of the shaft grate will be allowed so that CONTRACTOR can select a suitable location for the shaft grate, with approval of OWNER. Parameters for suitable location of the rebar shaft grate shall be as follows:
 1. Select an area in which competent rock is found around the collar of the shaft, if possible.
 2. Select an area with minimum irregularities in the collar to avoid excessive site preparation for the construction of the grade beam around the collar.
 3. Locate the grade beam at a reasonable distance (typically 3 feet minimum, or as directed by the OWNER) from the shaft collar to reduce the possibility of collapse of the collar of the shaft.
 4. Grates at shafts with competent rock collars where grade beams are omitted shall be installed at grade or inside the opening to a maximum depth of 3 feet below grade.
- B. Preparation. CONTRACTOR shall excavate to solid rock where the grade beam is to be constructed where the depth does not exceed two feet to bedrock. Any mud, clay, moss, or other materials where the grade beam is to be constructed which would be deleterious to the integrity of the grate or grade beam and would not allow good bonding of the concrete to the rock shall be removed. Historic structural features shall be preserved and maintained. Drainage shall be provided for any water that would accumulate on either side of the grade beam. Excavated materials shall be set aside for replacement later.
- C. Where possible, concrete grade beams shall be constructed on competent foundation rock which is not friable, subject to deterioration, or otherwise unacceptable and the foundation rock is approved by OWNER. The grade beam shall be a minimum of 12 inches high and 12 inches wide. Grade beams for grates larger than 15 feet in either dimension (measured from the interior sides of the grade beams) shall be a minimum of 18 inches high and 12 inches wide, or as directed by OWNER. Grade beams shall be pinned to the foundation rock using #8 rebar anchor pins installed a minimum of 18 inches into the rock, grouted, and set 2 inches below the upper surface of the grade beam. Rebar anchor pins shall be located on 8-foot centers maximum.
- D. Forms will be required for all grade beams. Forms shall be sufficiently braced to prevent movement or dislocation during or after setting the grate steel and rebar in place. Concrete shall be reinforced with #6 (¾-inch) rebar as shown on the Drawings. Concrete shall not be poured until the grate steel and rebar have been installed. Concrete shall be poured in one continuous operation and shall be free of cold joints. The grade beam shall be free of any voids within the beam structure and shall be 100 percent concrete construction. Concrete construction shall be done in accordance with Section 0251: Cast-In-Place Concrete and Section 0252: Concrete Reinforcement.
- E. Grates larger than 15 feet in either dimension (measured from the interior sides of the grade beam) shall be constructed with a supplemental support for the grate. This support shall be a mild steel W8 x 15 I-beam centered in the long-dimension sides, and running across the short dimension of the grate. The I-beam support shall be positioned directly beneath the crossbars and will be embedded in the grade beam 4 inches at each end. The height of the grade beam will be adjusted as needed to accommodate additional height of the I-beam support.
- F. Crossbars shall be installed in the grade beams running each direction on 8-inch centers to form a square grid. Crossbars shall be positioned a minimum of 4 inches below the top surface of the grade beam. Crossbars running the short dimension of the grate shall be placed underneath, except where there is a supplemental I-beam support. Each intersection of the crossbar grid shall be fillet welded on the upper side.

- G. In shafts with competent collars, grade beams may be omitted with approval of the OWNER. Rebar anchor pins shall be installed a minimum of 12 inches into the collar. At least 4 anchor pins shall be installed, with a maximum spacing of 8 feet between pins. Support bars shall be welded to the anchor pins. Grate crossbars shall be installed on the support bars, running each direction on 8-inch centers to form a square grid. Each intersection of the crossbar grid and each contact with the support bars shall be fillet welded on the upper side.
- H. Crossbars shall be continuous. Lap joints, if required, shall be a minimum of 5 inches with continuous fillet welds along both sides of the lap joint.
- I. All field welds shall be in accordance with the requirements of the American Welding Society (AWS) D.1.1.
- J. Upon completion, the collar areas shall be cleared of all construction materials, formwork, and construction-generated trash and debris. Material excavated for the grade beam preparation shall be backfilled against the beam. Excess material shall be blended into the surrounding area. The site shall be left with a clean and finished appearance.
- K. Variation in the generic design or custom fitting may be required to accommodate site-specific conditions. Section 0300: Specific Site Requirements may specify alternate materials, dimensions, or design modifications for specific mine openings.

3.04 CMP BAT GATE (ADIT GATE) INSTALLATION

- A. Bat gates shall be installed in CMP culverts in unstable locations where gates cannot be anchored directly to competent rock. Culverts may be round or elliptical. Culvert diameters and lengths will be specified in Section 0300: Specific Site Requirements. Culverts will typically be the largest diameter that will fit the opening. Culverts will typically extend in by the brow to competent rock or a minimum distance of twice the adit height. Culverts will typically extend out by the brow 2 feet past the backfill line.
- B. Adit Preparation. The CONTRACTOR shall scale down the roof and ribs of the adit, removing any loose rock from the area in which the CMP bat gate closure is to be constructed and along access to the closure. The portal shall be cleared of obstructions, trimmed, and shaped as directed by OWNER to receive the culvert. Historic structural features shall be preserved and maintained.
- C. Pipe Bed. A pipe bed of sand, crushed rock, fine mine dump material (minus 3 -inch) or equivalent shall be placed a minimum 4 inches thick on the adit floor. The bed shall have a constant grade and shall provide continuous support for the culvert along its entire length. Where the height of the adit is substantially greater than the culvert diameter, unclassified fill may be placed in the adit to raise the culvert to the desired elevation. Pipe bedding will then be placed on the unclassified fill.
- D. Culvert Installation. The culvert shall be slipped into position in the adit onto the pipe bed. The culvert shall be supported by bedding along its entire length when in place. Care shall be taken to avoid buckling or joint separation during handling and subsequent backfilling operations.
- E. Bat Gate Installation. The bat gate may be installed before or after placement of the culvert in the adit. The bat gate shall be installed as described in Part 3.02 above, with the following changes: the vertical supports and horizontal crossbars extend through the culvert a minimum of 6 inches and the perimeter bars are placed on the outside of the culvert. All crossbars shall be spaced on 5-inch centers for a maximum gap between bars of 4 inches. No opening in the bars shall be larger than 24" x 4".
- F. Headwall. A concrete headwall shall be constructed around the culvert and bat gate. The headwall shall be a minimum of 12 inches thick and shall extend out from the culvert a minimum of 12 inches in each direction. The headwall shall be centered on the bat gate. The concrete shall be reinforced with a single mat of #4 (1/2-inch) rebar on 12-inch centers. Concrete shall not be poured until the gate steel and rebar have been installed. Concrete shall be poured in one continuous operation and shall be free of cold joints. The headwall shall be free of any voids and shall be 100 percent concrete construction. Concrete construction shall be done in accordance with Section 0251: Cast-In-Place Concrete and Section 0252:

Concrete Reinforcement.

- G. Backfill. The gap between the culvert and the adit walls shall be completely backfilled for the full length and full circumference of the culvert. Polyurethane foam (PUF) shall be used to plug the interior reach of the gap. PUF application shall be in accordance with section 0254: Polyurethane Foam Shaft Closure. PUF can be injected through holes drilled in the culvert every three feet to reach inaccessible areas. Worker area shall be adequately ventilated during PUF installation. Unclassified fill shall be used to fill the exterior reach of the gap. Earthen backfill shall extend a minimum of 4 feet in by the brow. Backfill shall be placed by hand and tamped. Backfill out by the brow may be placed by machine and shall be placed in 12-inch lifts and compacted until reaching the top of the pipe. The area around the culvert and headwall shall be backfilled to blend with the adjacent slopes. Final grade shall provide positive drainage away from the adit.
- H. Upon Completion, the area shall be cleared of all construction materials, formwork, and construction-generated trash and debris. The site shall be left in a clean and finished appearance.
- I. Variations in the generic design or custom fitting may be required to accommodate site-specific conditions. Section 0300: Specific Site Requirements may specify alternate materials, dimensions, or design modifications for specific mine openings.

PART 4 - MEASUREMENT AND PAYMENT4.01 BASIS OF PAYMENT

Basis of payment for the WORK will be on the BID PRICE per opening for completion of all the WORK as described in this Section. Breakdown of the WORK into unit prices for individual mine openings shown in the Bid Schedule will be used in determining partial payment or adjustment of the total BID PRICE for this Section as the WORK progresses.

4.02 MEASUREMENT

Measurement for mine closures will be on the BID PRICE per mine opening. The BID PRICE shall include all costs for labor, materials, equipment and all other items necessary for completion of the work as described in this section. Measurement will be based on and compared to the dimensions and quantities identified on the bid sheets, these Specifications and Drawings. The OWNER will request intermediate measurements to determine progress of the WORK.

4.03 PAYMENT

- A. Payment for mine closures will be for each mine site at the BID PRICE. Payment will only be for those closures which are complete, accepted, and approved by the OWNER. No partial payments will be made for individual mine openings.
- B. Payment at the UNIT PRICE for additional quantities will be made for mine closures when final quantities are greater than 15 percent in excess of the estimated quantities shown on the bid sheet for a given mine site. Such unit price payment will require proof of additional quantities provided by the CONTRACTOR and approval of the OWNER, and shall be full compensation for the approved additional grate quantity. Reduction of payment for lesser quantities of installed grate will also be made by the OWNER for quantities greater than 15 percent below the estimated quantity shown on the bid sheet for a given mine. Such UNIT PRICE adjustment will require approval of the OWNER and will be full compensation for approved additional or reduced mine closure quantities.

END OF SECTION 0253

0270 Site Grading/Earthwork

PART 1 - GENERAL

1.01 WORK INCLUDED

This section covers the WORK necessary for general earthwork and site grading. The principal items of WORK include, but are not limited to, grading and/or burial of mine dumps, placement of soil material over mine dumps, transportation and placement of mine dump material, installation of riprap ditches and placement of soil materials.

1.02 SUBMITTALS

- A. CONTRACTOR shall submit *with the bid proposal* a list of equipment to be used to complete this section of the WORK.
- B. CONTRACTOR shall submit *with the bid proposal* locations of borrow areas for fill and topsoil for the approval of the OWNER when such areas are not shown on the Drawings.

1.03 RELATED WORK

- A. Section 0250: Mine Closures
- B. Section 0290: Revegetation
- C. Section 0300: Specific Site Requirements

1.04 PROTECTION

CONTRACTOR shall conduct grading and earthwork operations in a fashion to minimize erosion during and after construction. This shall include limiting disturbance of existing vegetation, working equipment parallel to contours, use of temporary drainage control where appropriate, and other practices as directed by the OWNER. Drainage and irrigation ditches shall be kept clear.

PART 2 - PRODUCTS

MATERIAL DEFINITIONS

A. VEGETATION

Naturally occurring plant growth including: trees, shrubs, grasses, weeds, sagebrush, etc.

B. TOPSOIL

Mineral soils, with organic matter, free of large roots, rocks, debris, and large weeds, obtained from the areas and to the maximum depths specified on the Drawings.

C. SUBSOIL

Mineral soils, free of organic matter and excessive amounts of construction debris and rubble, naturally or artificially (fill) occurring between topsoil and bedrock, including rocks and boulders.

D. MINE DUMP MATERIAL

Material produced in the process of mining, generally found on the site in waste piles and spread over subsoils and fill in thin veneers. The dump material typically consists of overburden materials, ore and fines, and intermixed subsoils. Material size ranges from silts and sands to rock greater than 18 inches in diameter.

E. RANDOM FILL

Artificially placed material consisting of mine dump material, excavated subsoils and unclassified

materials. Material for use as random fill shall be free of wood, roots, weeds, construction debris, and other combustible materials. Random fill shall not contain material sizes or gradations which preclude compaction.

F. UNCLASSIFIED EXCAVATION

As described by these Specifications, excavation is unclassified and includes in-situ soils as well as buried rubble and construction debris. It is not the intent of these Specifications to require the excavation of bedrock. Should bedrock be encountered, the OWNER shall be immediately notified so that field adjustments to the reclamation contours as shown in the Drawings can be made.

G. SOIL/ROCK FILL

Locally available material consisting of organic-free rock and coarse soils. Materials for use as soil/rock fill shall be designated on site by the OWNER.

PART 3 - EXECUTION

3.01 STRIP VEGETATION

WORK shall consist of removing vegetation, roots, and surficial debris from areas of reclamation as directed by the OWNER. The resulting debris shall be disposed of off-site, or may be buried on-site in an area approved by the OWNER. However, in no case may combustible materials be buried or otherwise placed in coal refuse.

3.02 SITE GRADING

A. GENERAL

The intent of this WORK is to develop the reclaimed contours shown in the Drawings and to establish favorable drainage conditions and erosion protection at all sites. Random fill shall be placed directly to meet the specified reclamation surface contours. Lines and grades as defined on the Drawings are subject to modification, dependent on the field conditions encountered. Unless identified on the Drawings or Specifications, the lower limit of excavation shall be the top of competent bedrock. The steepest allowable slope of reclaimed areas shall be 3:1, unless otherwise stated in these Specifications or shown on the Drawings. Site grading shall be performed to provide a reclamation area which blends well with natural conditions in adjacent areas.

B. DRAINAGE GRADING

1. At the location of each mine opening, CONTRACTOR shall grade the existing topography to allow surface water to drain freely away from the mine closure. Efforts shall be made to minimize the extent of this grading and limit the disturbance of existing vegetation.
2. Regraded surfaces for waste dump reclamation, burial of mine dump material, and reshaping of drainage channels shall be sloped to drain freely and shall include water bars, intermediate benches, and other such devices as shown on the Drawings to control precipitation runoff and prevent erosion.

C. STRIP MINE DUMP MATERIAL TO MINERAL SOILS

In the areas designated on the Drawings, CONTRACTOR shall strip existing mine dump material to sufficient depth to expose natural soils. Refuse from these areas shall be utilized as fill for site grading. Stripping depths shown are approximate only, and all mine dump material present shall be removed from the area. After mine dump material removal, soils within the stripped area shall be regraded to approximate the reclamation contours shown on the Drawings. CONTRACTOR shall not be required to import fill to the stripped area to create the contours shown.

D. EXCAVATION

CONTRACTOR shall excavate to the lines and grades shown on the Drawings or as directed by the

OWNER. Excavated materials conforming to the definition of random fill, including subsoils, mine dump material, and unclassified materials, shall be placed directly as fill in designated fill areas. Concrete and other inert materials may be buried at depth greater than 36 inches with the approval of the OWNER. CONTRACTOR shall be responsible for all surveying necessary to perform the WORK and determine pay quantities. CONTRACTOR shall confirm that the survey base used is consistent with the plans provided by the OWNER. The OWNER shall have surveys performed at its discretion for confirmation purposes.

E. FILL

Where fill is required, CONTRACTOR shall use excavated material acceptable as either random fill or soil/rock fill. Rocks and boulders greater than 12 inches in diameter shall be removed for use as riprap, buried in fill in accordance with grading tolerances below, or left on finished grade either singly or in groupings to blend with the natural surroundings. Construction debris may be incorporated in the fill providing such materials are properly broken down and placed in such a manner that no open voids exist. The placement of debris in the fill shall be subject to the approval of the OWNER. The distribution of materials throughout a fill shall be such that there shall be no lenses, pockets, streaks or layers of material differing substantially in texture and gradation from the surrounding material in the fill. Fill materials to be compacted with hauled or self-propelled compactors shall be placed and spread in horizontal lifts not exceeding 24 inches loose measure. Fill materials to be compacted by hand-guided or hand-operated equipment shall be placed and spread in horizontal lifts not exceeding 12 inches loose measure.

F. FILL COMPACTION

Each lift of material placed as fill shall be compacted by a minimum three (3) passes of a compactor exerting a minimum pressure of one hundred (100) pounds per square inch or as specified in Section 0300: Specific Site Requirements. Water shall be used as necessary in the compaction operation for dust control and to achieve the required compaction.

G. GRADING TOLERANCES

1. The reclaimed surface shall be constructed to produce the contours shown on the Drawings within a tolerance of plus or minus one foot. Where field conditions warrant a modification in the grading plan, top of subgrade shall be as directed by the OWNER. The top two feet of the subgrade shall consist only of clean subsoils or coal refuse which have been cleaned of cobbles and boulders exceeding twelve (12) inches in diameter.
2. Abrupt changes in grade shall be rounded to provide a pleasant visual effect.
3. Depressed areas shall be graded to prevent ponding or standing water.

H. SCARIFICATION

Scarification or discing shall be completed when the veneer of coal refuse is generally less than 6 inches thick. Scarification shall be accomplished with a tractor or bulldozer-hauled scarifier or disc-harrow. Where inaccessibility precludes the use of hauled equipment, scarification shall be completed manually with hoes and mattocks.

I. TOPSOIL PLACEMENT

1. Areas to be covered with topsoil shall be scarified to a minimum depth of 4 inches.
2. Following completion of regrading and earthwork to the contours required by these specifications, designated disturbed areas shall be covered with topsoil placed to a minimum thickness of 12 inches unless otherwise directed by the OWNER. On slopes of 3:1 or flatter, topsoil materials shall be compacted in the same manner as fill material. On slopes steeper than 3:1, the top-soil surface shall be stabilized by means of erosion control blanket, vegetation, riprap, or as otherwise directed by the OWNER. The topsoil shall be obtained only from the borrow areas shown and to the maximum depths specified on the Drawings.

J. DEBRIS BURIAL

Construction debris may be incorporated in fill providing such materials are properly broken down and placed in such a manner that no open voids exist. The placement of debris in fill shall at all times be subject to the approval of the OWNER.

PART 4 - MEASUREMENT AND PAYMENT4.01 MEASUREMENT

- A. Measurement will be based on and compared to the dimensions and quantities identified in the bid sheets, these Specifications and Drawings. The OWNER may request intermediate measurements to determine progress of the WORK.
- B. Measurements of cubic yards of Earthwork will be required for each mine site. Such measurement shall be used by the OWNER for comparison with the estimated quantity shown on the bid sheets.
- C. CONTRACTOR shall complete surveys before and after any site grading or earthwork as directed by OWNER. Volume of material removed or placed shall be calculated by the average-end-area method based on cross-sections developed from CONTRACTOR'S surveys. The OWNER will have surveys performed at OWNER's discretion for confirmation purposes.
- D. Should the CONTRACTOR estimate the cubic yards of materials to be greater than 15% more than the quantities shown in the Bid Schedule, a CHANGE ORDER must be negotiated with the OWNER for ADDITIONAL WORK prior to the CONTRACTOR undertaking ADDITIONAL WORK. Measurement for quantities shall be determined prior to the WORK.
- E. When the actual quantity of Site Grading/Earthwork performed as determined by measurement is greater than 15% less than the estimated quantity on the bid sheet, the OWNER will negotiate a reduction in the BID PRICE by the amount of variance using the UNIT PRICE. This adjustment shall be executed by a CHANGE ORDER.

4.02 PAYMENTS

- A. Payment for Site Grading/Earthwork will be for each mine site at the BID PRICE, as modified by any CHANGE ORDERS. Payment shall be authorized by the OWNER only for completed Site Grading/Earthwork. No partial payments shall be made.
- B. Payment at the UNIT PRICE for additional quantities of Site Grading/Earthwork will be made for quantities greater than 15 percent in excess of the estimated quantity shown on the bid sheet for a given mine site. Reduction of payment for lesser quantities of Site Grading/Earthwork will also be made by the OWNER for quantities greater than 15% below the estimated quantity shown on the bid sheet for a given mine. Such UNIT PRICE payment will require approval of the OWNER, and will be full compensation for approved additional or reduced Site Grading/Earthwork.
- C. Payment for additional topsoil placement at individual sites designated by the OWNER will be at the UNIT PRICE bid. For bidding it will be assumed that additional topsoil can be readily excavated from the designated borrow area with standard earthwork equipment, no access improvement to the area will be required, and the haul distance will not exceed two miles.

END OF SECTION 0270

0290 Revegetation

PART 1 - GENERAL

1.01 WORK INCLUDED

The WORK consists of revegetation of the disturbed areas, including areas disturbed by the WORK. Revegetation shall include:

- A. Site preparation
- B. Seedbed preparation
- C. Topsoil placement as required
- D. Seeding
- E. Mulching
- F. Erosion control netting
- G. Seedling and cutting planting

1.02 SUBMITTALS

- A. CONTRACTOR shall submit *with the bid proposal* the names of one seed supplier, and alternate, to be used for the seed mixtures required by these specifications.
- B. CONTRACTOR shall submit *with the bid proposal* a written description indicating equipment to be used to perform the work required in this section.
- C. CONTRACTOR shall submit *during construction* empty container labels, tags, and receipts for mulch material and seed for verification of materials being used.
- D. CONTRACTOR shall submit, if mulch is specified, *during construction and prior to applying mulch* the Phytosanitary Certificate required by the Utah Department of Agriculture.

1.03 RELATED WORK

- A. Section 0230: Access Improvement
- B. Section 0250: Mine Closures
- C. Section 0270: Site Grading/Earthwork
- D. Section 0300: Specific Site Requirements

1.04 DELIVERY, STORAGE, AND HANDLING

- A. CONTRACTOR shall deliver seed in original containers showing analysis of seed mixture, percentage of pure live seed (PLS), year of production, net weight, date of packaging and location of packaging. Seed must be stored under dark, cool, and dry conditions. Damaged packages are not acceptable.
- B. Erosion control netting shall be stored out of direct sunlight.

PART 2 - PRODUCTS

2.01 PLANT MATERIALS

- A. A combination of plant materials that may include seed, seedlings, containerized stock, and cuttings shall be used in revegetation. The use of the plant materials shall be in accordance with Section 0300: Specific Site Requirements and as shown on the Drawings.
- B. CONTRACTOR shall make a concerted effort to obtain all components of the plant materials mixture. Seed and nursery sources may require greater than six weeks notice to obtain specific species. More than one source may be required to furnish all seed or plant varieties. If all sources have been exhausted, or if available seed or stock of a given species is of unacceptable quality, that species may be deleted or another species substituted. Any changes in the seed mixture shall require the written approval of the

OWNER prior to execution of the contract.

- C. CONTRACTOR must submit name of company and alternate that will supply seed, see Section 1.02. A.

2.02 SEED

- A. The species composition and planting rates of the seed mixtures to be used are specified in Appendix C. Unless specified otherwise, seeding rates given are for broadcast seeding.
- B. All seed mixes shall be fresh, clean, new crop seed.

2.03 MULCH

- A. Mulch, when required, shall consist of native hay or straw free of noxious weeds or any foreign material detrimental to plant life. *Alfalfa will not be permitted.*
- B. Mulch must meet the requirements of the Utah Noxious Weed Act (4-17-3, UCA; Regulation A700-04-09) and the Utah Phytosanitation Act. Mulch must be tested and found clean by an official Utah Department of Agriculture Inspector. CONTRACTOR shall contact the state inspector and arrange testing. Payment will not be made without certificate of inspection from Agricultural Inspector. Untested mulch may be used only with the prior written approval of the OWNER.
- C. Hay used as mulch may be old, but it shall be dry and not moldy.

2.04 TOPSOIL

- A. Topsoil shall be as defined in Section 0270: Site Grading/Earthwork.

PART 3 - EXECUTION

3.01 GENERAL

- A. Areas to be revegetated are all those which have been disturbed during reclamation construction. Those areas shall include, but are not limited to, portal closure areas, subsidence areas, grading areas, access routes, staging areas, and other areas disturbed by CONTRACTOR in performing the WORK.
- B. CONTRACTOR shall take necessary precautions to avoid disturbance of surrounding native areas and will not travel on previously undisturbed soil, unless directed by OWNER.
- C. When machinery is specified, all operations will be conducted along the contour. On level sites (area permitting) all equipment operations shall be conducted perpendicular to the prevailing wind direction when wind erosion potential is considered to be high.

3.02 SITE PREPARATION

- A. CONTRACTOR shall remove and bury foreign materials and debris collected during topsoil spreading. Tree stumps and large shrubs may also be removed, buried, or stockpiled for distribution on the site following top-soiling, as specified in Section 0300 or as directed by OWNER.
- B. Areas that are not fill areas with imported topsoil shall be chiseled or ripped to a depth of 12 inches. This particularly applies to areas that have soils compacted from construction activities and includes haul roads and site access roads. Ripping shall be repeated until the compacted area is loose and friable.
- C. Areas of fill to be covered with imported topsoil shall be chiseled or ripped to a depth of 12 inches. Ripping of fill materials shall be completed by a bulldozer equipped with single or a twin set of ripper shanks. Ripping shall be done on 4-foot centers to a depth of 12 inches and shall follow final grading and precede seedbed material (topsoil) application. Ripping shall be completed at a speed which maximizes ripper shank action and promotes soil material disruption to the specified depth. Ripping shall be repeated until the compacted area is loose and friable.

- D. Topsoil shall be placed on fill areas immediately following ripping to a minimum depth of 24 inches, or other minimum depth as specified in Sections 0270 or 0300, in all areas designated by the OWNER.

3.03 MULCHING

- A. All sites not designated for erosion control blanket shall be mulched unless otherwise specified by the OWNER in Section 0300: Specific Site Requirements.
- B. Mulching shall be performed AFTER topsoil is in place, and PRIOR to seeding. Mulch shall be spread by hand or mechanical blower, in an even manner, at a rate of 2,000 pounds per acre over the site to be mulched. Mulch application shall be initiated at the top of the slope, working downhill, where possible.
- C. Mulch shall be crimped with hand tools where equipment cannot gain access or where soil surface roughness (see Part 3.05 below) is already adequate following topsoil distribution and further equipment activity would level the surface.

3.04 SEEDBED PREPARATION/SURFACE ROUGHENING

- A. AFTER topsoil placement and mulching, and PRIOR to seeding, the ground surface shall be roughened and gouged to create hummocks and depressions with up to 12 inches of relief. This relief will reduce ground surface wind disturbance and create water catchment basins. Roughening can be achieved by gouging with a backhoe or excavator bucket. Surface roughness can also be created during topsoil distribution by leaving intact the mounds and windrows from each dump truck or loader bucket dump. Furrows, basins, and ridges created by the roughening should run predominantly along the contour to minimize runoff. The roughening process should incorporate the mulch into the top of the soil and some will be buried; however, care should be taken to minimize the mulch buried at depth. CONTRACTOR shall exhibit caution during the gouging and roughening process to ensure that subsurface coal refuse is not uncovered or brought up to the surface.
- B. Boulders, both large and small, may be left on site after topsoiling and prior to seeding, either singly or in groupings to blend with the natural surroundings, as directed by OWNER. OWNER may require that additional boulders be placed on site prior to seeding to enhance visual variation and provide wildlife habitat.
- C. Seedbed preparation shall be considered to be complete when the soil surface is completely roughened.
- D. Unless the soil is severely compacted, seedbed preparation shall not be required for discontinuous, isolated areas of disturbance less than 0.05 acres (approximately 2500 square feet or 50 feet by 50 feet), such as areas around mine portal closures.

3.05 SEEDING

- A. All seeding shall be broadcasting as directed by OWNER. When broadcast seeding, passes shall be made over the site to be seeded such that even distribution of seed shall be obtained. Broadcast seeding shall take place immediately following the completion of final seedbed preparation. Broadcast seeding shall not be conducted when wind velocities would prohibit even seed distribution. Broadcast seeding shall be followed by hand raking, manual use of a drag chain, or sweeping with sturdy tree or shrub branches to cover seed. This shall be done over the entire site but will not be so extreme as to reduce the extent of soil relief.
- B. Broadcast seeding of large areas shall be done using hand-operated "cyclone-type" mechanical seeders. All seeding equipment used shall be equipped with a metering device and set to the appropriate seeding rate.
- C. Broadcast seeding of small areas of disturbance less than 0.05 acres (approximately 2500 square feet or 50' x 50') may be done by hand scattering. Raking of small areas is not necessary if there is sufficient surface roughness to ensure that seeds will fall into crevices and other micro-topographic depressions so that weather and gravity will cause them to be covered and stay in place.
- D. After completion of the broadcast seeding and seed covering, organic debris such as logs, tree stumps,

and grubbed vegetation shall be randomly redistributed across the sites. This shall be done at the OWNER's direction for the purpose of creating visual variation and production of wildlife habitat. Care shall be exhibited to avoid leveling the soil surface.

PART 4 - MEASUREMENT AND PAYMENT

4.01 MEASUREMENT

- A. Measurement will be based on and compared to the quantities identified in the bid sheets, these Specifications and Drawings for each mine site. The OWNER will request intermediate measurements to determine progress of the WORK.
- B. Measurements by CONTRACTOR will be required for a given mine site for acres of revegetation and/or square yards of erosion control blanket. Such measurements will be used by the OWNER for comparison with the estimated quantities shown on the bid sheets.
- C. Should the CONTRACTOR estimate the quantity of materials to be greater than 15% more than the quantities shown in the Bid Schedule, a CHANGE ORDER must be negotiated with the OWNER for ADDITIONAL WORK prior to the CONTRACTOR undertaking ADDITIONAL WORK. Measurement for quantities shall be determined prior to the WORK.
- D. When the actual quantity of Revegetation performed as determined by measurement is greater than 15% less than the estimated quantity on the bid sheet, the OWNER will negotiate a reduction in the BID PRICE by the amount of variance using the UNIT PRICE. This adjustment shall be executed by a CHANGE ORDER.

4.02 PAYMENTS

- A. Payment for Revegetation will be for each mine site at the BID PRICE, as modified by any CHANGE ORDERS. No partial payments will be made.
- B. Payment at the UNIT PRICE for additional quantities of Revegetation will be made for quantities greater than 15 percent in excess of the estimated quantity shown on the bid sheet for a given mine site. Reduction of payment for lesser quantities of Revegetation will also be made by the OWNER for quantities greater than 15% below the estimated quantity shown on the bid sheet for a given mine. Such unit price payment will require approval of the OWNER, and will be full compensation for additional or reduced revegetation and/or erosion control blanket.
- C. Payment will not be made without:
 - 1. Seed: seed testing certification, certification to be submitted with invoice, and
 - 2. Mulch [only if specified]: Phytosanitary Certificate for certification of compliance with the Utah Noxious Weed Act. Certification shall be submitted with invoice.

END OF SECTION 0290

0300 Specific Site Requirements

1.01 WORK INCLUDED

- A. This Section describes the location, the features present, and the WORK to be done at the Vernon Sheeprocks Project area. The items of the WORK shall be performed according to the appropriate sections of these Specifications.
- B. It is the intent of these Specifications that the site-specific scope of WORK is as described in this Section. The General Technical Specifications, Sections 0200 through 0290, outline WORK broadly applicable to all abandoned mine reclamation situations and that may not be required at each site in this project. Where there is a conflict between Section 0300 and the General Technical Specifications (0200's), Section 0300 shall govern.
- C. A description of the mine sites and their locations is presented below. Details and dimensions are shown on the Drawings. CONTRACTOR shall be aware that the dimensions on the Drawings are approximate. CONTRACTOR shall also be aware that minimum or maximum dimensions on the Drawings or given in the Specifications are specific and are to be adhered to unless such changes are approved in writing by the OWNER. The quantities presented in the specific site sections should be considered as an estimate with a tolerance of plus or minus 15 percent. CONTRACTOR shall visit the site and decide for his or her own purposes the quantities and amounts required in doing the WORK as intended in these Specifications and on the Drawings.

1.02 LOCATION AND DESCRIPTION

- A. The Vernon Sheeprocks Project area is located in Tooele County in the Sheeprock Mountains directly south of the town of Vernon and about 40 miles south of Tooele. General reclamation area boundaries of the Vernon Sheeprocks Project are shown on the attached location maps (see Appendix F, Map 1 and Plates 1 and 2) and are described in this section.
- B. The Vernon Sheeprocks Project area consists of approximately 191 abandoned precious and base metal mine openings or related features, including adits, shafts, inclines, prospects, pits, and trenches, on the Uinta National Forest in the Sheeprock Mountains. The formal project boundary is defined by and coincident with the National Forest boundary and includes federal lands managed by the U.S. Forest Service (USFS) and private inholdings. The project area takes in most of the northern part of the Sheeprock Mountains and the flats and foothills northeast of the Sheeprocks. The project area contains an estimated 191 inventoried mine features. The formal project boundary includes about 160 square miles. Mines are not evenly distributed in this area. Nearly all of the mines are in the mountains in the far southern third of the project area in an area covering about 20 square miles along the main spine of the mountain range. The area actually affected by mining is substantially smaller than the formal project boundary.
- C. Access: To reach the Vernon Sheeprocks Project area from Tooele, go south on Main Street (Hwy U-36) 33 miles to the town of Vernon. From Vernon, a loop of roads runs around the perimeter of the Sheeprock Mountains, and from this perimeter loop a number of spur roads lead into the several canyons where the mines are located. Access to individual mine sites within the project area is discussed in Parts 1.05 and 1.06 below.
- D. The formal Vernon Sheeprocks Project boundary takes in the following sections, although mines occur in only a portion of this area:

T9S, R4W, Sections: 7 (part), 8 (part), 17 (part), 18, 19, 20 (part), 21(part), 27 (part), 28-33, 34 (part)

T9S, R5W, Sections: 1-36

T9S, R6W, Sections: 1-36

T9S, R7W, Sections: 1 (part), 2 (part), 3 (part), 10-15, 22-27, 36

T10S, R4W, Sections: 5 (part), 6, 7, 8 (part), 17 (part), 18

T10S, R5W, Sections: 1-24, 27 (part), 28-30

T10S, R6W, Sections: 1-26

T10S, R7W, Sections: 1, 12, 13, 24

- E. The Vernon Sheeprocks Project is mapped on the following USGS 7½' quadrangles: Dutch Peak, Erickson Knoll, Indian Peaks, Indian Springs, Lofgreen, Lookout Pass, Sabie Mountain and Vernon. Mines occur on the Dutch Peak, Erickson Knoll, Lookout Pass, and Sabie Mountain quads.

USGS 7½' quad index:

Indian Peaks	Lookout Pass	Vernon	Lofgreen
Indian Springs	Erickson Knoll	Dutch Peak	Sabie Mountain

Because the project covers such a large area, the USGS 30'x60' series maps (1:100,000 scale) are especially useful for general navigation. The Vernon Sheeprocks Project is mapped on the following 30'x60' quadrangles: Rush Valley, Lynndyl.

USGS 30'x60' quad index:

Rush Valley
Lynndyl

1.03 MINE OPENING LOCATIONS AND DESCRIPTIONS

- A. The Vernon Sheeprocks Project area consists of approximately 191 identified abandoned mine openings or other mining features. The mine openings consist of adits, inclines, vertical shafts, exposed stopes, prospect pits, trenches, and subsidence holes. The openings occur in a wide range of sizes, configurations, and conditions.
- B. Locations, descriptions, approximate dimensions, UTM coordinates, closure methods, and map references of each mine opening (site) are provided in the table in Appendix A. Detailed locations of the sites are presented on the maps in Appendix F (Maps S1 to S6 and D1 to D12 and Plate 2). Note that mine symbols may be plotted on the maps offset slightly from their true locations due to terrain interference with GPS surveys and the way the mapping software treats adit symbols.
- C. Site ID Numbers (Tag Numbers): Each mine opening or feature is identified by a unique site identification number such as 3411308HO002. The ID number consists of seven digits, one or two letters, and one to three digits. The first digit indicates the quadrant around the Salt Lake baseline and meridian (or the Uinta special meridian). Townships south and east of the SLBM are coded "4." The second and third digits indicate the township, the fourth and fifth digits indicate the range, and the sixth and seventh digits indicate the section. These numbers are followed by letters indicating the type of mine opening or feature (H = horizontal adit, I = inclined adit, V = vertical shaft, SH = subsidence hole, PR = prospect, TR = trench, PT = open pit, TA = tailings) and, in the case of shafts and adits, letters indicating whether the mine is open (O) or closed (C). These letters are followed by numbers that are sequential numbers assigned as the openings were encountered during the field inventory. Thus, site number 4060318HO003 is the third horizontal opening (HO) inventoried in Township 6 South, Range 3 East, Section 18. The leading zeros in the sequential number part of the ID number are frequently omitted (i.e. HO3 instead of HO003).
- D. Identifying Sites: Sites in the field are marked two ways, with wooden stakes and steel washers. The 1"x2" wooden stakes have the full ID number written in ink. The washers are 12" diameter and are bolted to rock with masonry anchors. They are stamped with only the opening ID, without the numbers for quadrant, township, range, and section (e.g. just "HO3"). Because of vandalism or weather, many mine ID markers are illegible or are missing altogether. Some mine features, particularly small prospects, are not marked. In a very few cases, sites have been renumbered, and ID numbers on tags may not match the ID number in these Specifications. CONTRACTOR will have to rely on the site location maps and the descriptions in Appendix A to identify mine sites. OWNER's Contract Representative will provide assistance in identifying the mine openings.

1.04 PROJECT ORGANIZATION AND MAPPING

- A. The Vernon Sheeprocks project covers a very large area and has a complicated system of roads. To simplify descriptions of mine location and access, the mine sites in the Vernon Sheeprocks Project have been organized into six “subareas” based on geographical proximity and access. These subareas are the basis for the subarea maps in Appendix F (Subarea Maps S1 to S6). The subarea maps are designed to show access routes to the mines from an easily located landmark on a 2-wheel-drive perimeter road.
- B. The mine sites are too dense to be clearly mapped and labeled at the scale of the subarea maps. Within five of the six subareas there are clusters of mines that are mapped on a series of twelve “detail” maps (Detail Maps D1 to D12). Each detail map corresponds to a particular canyon and has a single access road. The detail maps are designed to show the location of each mine in the canyon once one has entered the map area.
- C. The following table shows the relationship between the six subareas and the twelve detail areas:

Subarea		Detail	
Map Scale: 1:48,000 or 1 inch = 4000 feet		Map Scale: 1:12,000 or 1 inch = 1000 feet	
Subarea Number	Subarea Name	Detail Number	Detail Name
S1	Copper Springs	None	None
S2	East Gov't/No. Oak Brush/Harker	D1	North Oak Brush
		D2	Harker Canyon
S3	Bennion	D3	Bennion
S4	Vernon Ck/Little Valley	D4	Little Valley North
		D5	Little Valley South
S5	Joes/Hard to Beat	D6	Joes Canyon
		D7	Sheeprock
		D8	Hard to Beat South
		D9	Hard to Beat North
		D10	Cottonwood
S6	So. Pine/So. Oak Brush	D11	South Pine
		D12	South Oak Brush

- D. The detail maps are the basis for the site groupings in the Bid Schedule and Appendix A. All sites are listed in the Bid Schedule and Appendix A grouped by their detail map and then in the numerical order of their tag numbers.
- E. Note that there are seven isolated mine openings that are plotted on the subarea maps but are not included on any detail map. The subarea maps alone are adequate to locate these sites. These sites are 3090711VO001 (Copper Springs, Subarea S1); 3090620VO001, 3090627IO001, 3090627PR001 (East Gov't/No. Oak Brush/Harker, Subarea S2); and 3100503HC001, 3100511HO001, 3100524HO001 (Vernon Ck/Little Valley, Subarea S4). These seven outlying sites are grouped together and listed separately in the Bid Schedule and Appendix A.

1.05 PROJECT ACCESS AND NAVIGATION

- A. To reach the Vernon Sheeprocks Project area from Tooele, go south on Main Street (Hwy U-36) 33 miles to the town of Vernon. From Vernon, mines on the northern flank of the Sheeprock Mountains are reached by taking a number of roads that lead to the several canyons where the mines are located. Mines on the southern flank of the Sheeprock Mountains are reached from Vernon by going around the west end of the range via the Pony Express Trail and Erickson Pass Road, by going around the east end of the range on USFS Road #005 along Vernon Creek to the Cherry Creek Road, or by taking highway U-36 to Eureka and then taking highway US-6 to the Jericho-Callao Road (past Little Sahara). It is generally easier and faster to reach mines on the southern flank by taking the Jericho-Callao road from highway US-6.

- B. The Vernon Sheeprocks project covers a very large area (approximately 160 square miles). Although most of the mines are clustered in a 20-square-mile band along the main spine of the mountain range, access to the mines is complicated. The system of roads serving the area is not very good and consists of several dead-end spurs leading up the canyons where the mines are located. There are no good internal connecting roads. Travel distances are long and the roads are slow. *In many cases it will take longer to travel to the mines than it will take to actually close them.* It may take several hours to drive from one mine to another less than a mile away on the opposite side of a ridge due to the lack of connecting roads in the interior of the project area. The 4-wheel-drive roads leading into the canyons are typically suitable for 3-10 mph in good weather; it typically takes about 45 minutes to an hour to drive the 5-8 miles from the 2-wheel-drive perimeter roads up the canyons to the mines.
- C. Detailed road directions are not included in these specifications. The project is large and the road system is complex. There are too many potential starting points and too many destinations to provide a complete set of written directions. Access routes are best determined by consulting the project maps. The road system can be thought of as a loop that runs around the perimeter of the Sheeprock Mountain range, with several dead-end spurs that run from the perimeter loop into the various canyons in the range. The “Key Roads” map (Map 1) shows the location of the perimeter loop roads and their relationship to major highways and cities. Use this map and the “Project Area Overview” maps (Plates 1 and 2) to navigate to the landmarks shown on the subarea maps (Maps S1-S6). Use the subarea maps to navigate from the landmark to the canyons shown on the detail maps (Maps D1-D12). Use the detail maps to find the individual mine openings.
- D. OWNER has detailed written access route descriptions and road logs to all work areas and will provide them to CONTRACTOR if needed.
- E. To simplify navigational directions, some key point locations have been defined for use as reference landmarks. These landmark points are labeled on the project maps. (Most of these landmark location names were made up for this project and will mean nothing to local residents.)

Vernon: junction of U-36 and Castagno Street (Silver Sage gas station)

Benmore: T-intersection located at the common corner of T9S, R5W, Sections 20, 21, 28, 29. It is the junction of USFS Roads #005 and #090 at the USFS Benmore Station. Benmore is two miles due east of the Harker Road Junction on USFS Road #090.

Harker Road Junction: 4-way intersection at the common corner of T9S, R5W, Sections 19 & 30 and T9S R6W, Sections 24 & 25 at the south end of Harker Road. The Harker Road Junction is two miles due west of Benmore on USFS Road #090.

Cherry Creek Junction: 4-way intersection in T12S, R5W, Section 3 SW $\frac{1}{4}$. There are “Prevent Wildfires” and “No Maintenance During Winter Months” signs on the east side of the intersection. The road heading southeast connects the Cherry Creek Road to the Jericho-Callao Road. The road heading northwest enters the Cherry Creek Project area that was reclaimed in 2004.

Ekker Ranch Junction: 4-way intersection in T11S, R6W, Section 9 NW $\frac{1}{4}$, south of Ekker Ranch. There is a juniper post in the “island” between the roads formed by corner-cutting.

Benchmark Junction: T-intersection in T10S, R7W, Section 35 SW $\frac{1}{4}$, northwest of Erickson Knoll. The benchmark is a brass survey monument set in a small concrete block about 10 feet west of the road and is clearly visible from the road. There is a steel T-post near the benchmark.

Erickson Pass Junction: 4-way intersection in T8S, R7W, Section 20 SW $\frac{1}{4}$ that is the turnoff from the Pony Express Trail onto the Erickson Pass Road. It is marked by a routed wood BLM directional sign with arrows for Simpson Springs, Fish Springs, Erickson Pass, and Dugway.

005/Cherry Creek Junction: 3-way intersection of USFS Road #005 along Vernon Creek and the Cherry Creek Road in T11S, R4W, Section 7 SW $\frac{1}{4}$. Because of corner-cutting the junction is actually three intersections about 0.1 mile apart with a large triangular island between them. There are routed wood BLM directional signs at each intersection, but the west-facing sign has fallen down.

- F. The following list provides the navigational landmarks and the detail maps found in each subarea. Use the “Key Roads” and “Project Overview” maps to navigate to the landmark. Use the subarea maps to navigate from the landmark to the areas mapped on the detail maps. The detail maps can then be used to locate each individual mine site.

Copper Springs: (Subarea Map S1)

Landmark: Erickson Pass Junction (turnoff from the Pony Express Trail)

Details: None.

This subarea has a single site, 3080911VO001 that is not mapped on a detail map.

East Gov’t/No. Oak Brush/Harker: (Subarea Map S2)

Landmark: Harker Road Junction

Details: North Oak Brush (D1), Harker Canyon (D2)

This subarea has three sites that are not mapped on a detail map: Site 3090620VO001 on East Government Creek and Sites 3090627IO001 and 3090627PR001 on Lion Hill along the road to North Oak Brush Canyon.

Bennion: (Subarea Map S3)

Landmarks: Harker Road Junction, Benmore

Detail: Bennion (D3)

Vernon Ck/Little Valley: (Subarea Map S4)

Landmark: Benmore

Details: Little Valley North (D4), Little Valley South (D5)

This subarea has three sites that are not mapped on a detail map: Site 3100503HC001, Site 3100511HO001, and Site 3100524HO001, all near Vernon Creek along USFS Road #005.

Joes/Hard to Beat: (Subarea Map S5)

Landmark: Ekker Ranch Junction

Details: Joes Canyon (D6), Sheeprock (D7), Hard to Beat South (D8), Hard to Beat North (D9), Cottonwood (D10)

So. Pine/So. Oak Brush: (Subarea Map S6)

Landmarks: Ekker Ranch Junction, Benchmark Junction

Details: South Pine (D11), South Oak Brush (D12)

1.06 PROJECT AREA ROADS

- A. Except for Hwy U-36 and local streets in Vernon, the roads in the Vernon Sheeprocks Project area are gravel or dirt. The perimeter routes around the Sheeprock range (Pony Express Trail, Erickson Pass Road, Cherry Creek Road, Jericho-Callao Road, USFS Road #005) are generally maintained and suitable for all 2-wheel drive vehicles and semis hauling transports in most weather (Some of these roads may not be passable in wet weather). Access to the mines in the interior of the project area is on unmaintained 4-wheel-drive roads. These dirt roads have varying degrees of passability. High clearance and/or four-wheel-drive vehicles are mandatory for travel in most of the project area, particularly in wet weather and in the upper reaches of the canyons. Some dirt roads may be fine when dry, but can be muddy quagmires when wet. Some mines may only be accessible by ATV or foot. Many stretches of the roads in the upper reaches of canyons are narrow tracks through dense scrub that will scratch vehicle paint. Dead trees fallen across the roadways are common.
- B. Roads on the maps in Appendix F are symbolized as Paved, 2WD, 4WD, ATV, Foot, or Unclassified. Roads symbolized as Paved or 2WD are maintained and should be passable to all types of vehicles in most weather. Roads symbolized as 4WD are wide enough for a standard truck or SUV, but may have rocks, ruts, gully crossings, mud, or other obstacles requiring high clearance and/or four-wheel-drive. Roads symbolized as ATV are too narrow, too steep, or too rocky for full sized vehicles but are suitable for ATV's. Some ATV roads may be also suitable for tracked equipment. Roads symbolized as Foot are trails that are too steep, narrow, washed out, or boulder strewn for vehicles, although some may be passable to single-track vehicles (dirt bikes). Unclassified roads may be any type (most are 4WD) but are not needed to access the mines; they are included as reference landmarks.

- C. Many of the interior roads in the project area are Forest Service roads with USFS road number designations. These road numbers are marked in the field on Carsonite (fiberglass) posts and are labeled on the maps. Many of these posts are missing.
- D. Roads in Joes, Sheeprock, Hard to Beat, and Cottonwood canyons have locked gates. OWNER will provide a key for these locks. Keys are USFS property.
- E. The road going up Joes Canyon has two gates with overhead guy wires bracing the gateposts. The maximum clearance under these wires is 6-8 feet, which is adequate for a pick-up or SUV, but not for a larger truck or backhoe.
- F. The road going up Hard to Beat Canyon has a gate with an overhead crossbeam between the gateposts. The maximum clearance under this beam is 12.5 feet.
- G. Vehicle travel on some roads is subject to restrictions (see Part 2.08 below).

1.07 LAND STATUS

- A. The Vernon Sheeprocks Project area contains land owned or controlled by several parties. OWNER is responsible for obtaining the necessary rights of entry to perform the reclamation work. OWNER will have maps showing boundaries of property tracts available during construction for consultation.
- B. Approximately 120 of the 191 sites occur on public land managed by the U.S. Forest Service (USFS). These include sites on unpatented mining claims and sites on other public land. Approximately 50 of the 120 USFS sites are scheduled for closure. For more information, contact:

Bill Ott, District Ranger -or- Duane Resare, Minerals Manager
Spanish Fork Ranger District
Uinta National Forest
44 West 400 North
Spanish Fork, Utah 84660
(801) 342-5260 - Ott
(801) 342-5270 - Resare
- C. The remaining sites (71 sites, 23 scheduled for closure) are on private land held by a number of different interests. Sites on private land are indicated in the "Special Conditions" column of the mine closure table in Appendix A.
- D. *CONTRACTOR shall not perform WORK on any site until OWNER has obtained landowner consent for that site.*
- E. At time of project bidding, OWNER has secured written landowner consent for right of entry for most of the private land in the project area. OWNER anticipates having all private land written rights of entry in place by the time the Notice to Proceed is issued.
- F. CONTRACTOR shall not perform WORK on sites on USFS administered land until OWNER has obtained authorization from USFS (expected prior to Notice to Proceed).

PART 2 - SPECIAL CONDITIONS AND RESTRICTIONS

2.01 CULTURAL RESOURCE PROTECTION

- A. The Vernon Sheeprocks Project area has 69 mine openings determined to be on significant historical sites eligible for listing on the National Register of Historic Places (31 of these are scheduled for closure). National Register eligible sites are indicated in the "Special Conditions" column of the mine closure table in Appendix A. ***All reclamation activities shall be conducted in a manner sensitive to the historic values and resources found in the area.*** CONTRACTOR shall ensure that all construction crew members are aware of the cultural sensitivity of the area and the cultural resource protection requirements.

- B. While features such as cabins, headframes, and ore chutes are obviously important, many of the historically important features present in the project area are not readily apparent. For example, ore sorting areas may appear simply as a patch of differently colored rock on a dump. Much of what is significant might typically be dismissed as "trash" somewhere else. Often, the mine opening itself, or cribbing within an opening, is important and needs to be treated appropriately.
- C. Access improvement, excavation, and other ground disturbing activities shall be limited to the minimum necessary to achieve the goals of the WORK. Alteration or removal of structures or structural elements of mine openings, such as props, lagging, cribbing, retaining walls, foundations, and doorways *shall be limited to the minimum necessary to safely and effectively install the closure*. Any such alteration shall be planned in consultation with and executed as directed by the OWNER.
- D. One of the key features of the project area that makes the Vernon Sheeprocks Project area historically important is its surviving "historic landscape", the overall appearance of the terrain dotted with mine dumps and workings offering a glimpse of the past. To preserve this historic appearance, when possible mine dumps used as a source of backfill shall be excavated in a way that maintains the outer lines and grades of the dump. This can be done by uniformly removing material from all surfaces, by removing material from the top down, by slightly "hollowing out" the dump, or by removing one lobe of a multi-lobed dump. The idea is to avoid leaving the dump with an uneven, gouged look.
- E. Removal of historic or prehistoric artifacts or rock specimens is prohibited. This includes, but is not limited to, bottles, bottle fragments, china and glass fragments, tools, tin cans, buckets, pipe, wire, nails, spikes, bolts, track, machinery, ore cars, vehicles, lumber and other wood, arrowheads and other stone tools, ore samples, petrified wood, and fossils.
- F. CONTRACTOR shall stop work and notify OWNER immediately if human burial remains are discovered.

2.02 BAT CONSERVATION

- A. OWNER has performed surveys to determine which mines are used for bat habitat. Where bats are present in a mine, they will be excluded from the mine prior to installing airtight closures (see Section 0250, Part 3.01.F). Sites requiring exclusion prior to closure are indicated in the "Special Conditions" column of the mine closure table in Appendix A.
- B. The length of the exclusion period may be reduced from one week to three fair weather days with OWNER=s approval. Rainy or cold weather inhibits bat activity and will increase the length of the exclusion accordingly, up to the one week maximum.
- C. The recreational use of the project area raises the possibility that vandals may damage or remove the chicken wire seals during the exclusion period. Should this occur, damaged seals shall be replaced and the exclusion period started over.
- D. The exclusion process is effective only in warm seasons when bats are active. To prevent entombing hibernating bats, sites indicated in Appendix A as requiring exclusion prior to closure shall not be closed during the cold season (from October 31 to March 31). Closure of these sites shall be postponed to the following warm season. Cold season closures may be performed following an internal inspection for hibernating bats. Internal inspections shall be performed by the OWNER and are subject to the availability of the OWNER=s bat inspection team.
- E. Vertical shafts covered with chicken wire for bat exclusion shall be flagged with warning tape.

2.03 BIRD CONSERVATION

- A. A number of state and federal laws or policies protect several bird species. CONTRACTOR shall avoid or minimize disturbance to protected birds as outlined in this section. Generally this is done by scheduling work to avoid sensitive breeding activity and by minimizing habitat disturbance.
- B. During spring nesting and fledging (January 15 to August 31) OWNER will perform line-of-site visual surveys for raptor nests in the vicinity of the mine sites. If nests are found, CONTRACTOR shall reschedule work at those sites until after August 31.

- C. The greater sage-grouse (*Centrocercus urophasianus*) occurs in sagebrush habitats throughout the project area and has leks (strutting areas) in the Vernon Creek, Little Valley, and Bennion Creek subareas. WORK in these area may be scheduled for after 9:00 A.M. until June 30 to avoid disturbing lek activity.
- D. Two bird species designated as threatened and protected under the Endangered Species Act may occur in the project area, although it is extremely unlikely. They are the western yellow-billed cuckoo and the bald eagle. Should either of these birds be sighted, WORK may be stopped or rescheduled in that area, pending consultation with wildlife authorities.
- E. A category of birds known as neotropical migrants (basically, familiar migratory songbirds and other birds such as warblers, thrushes, wrens, towhees, hummingbirds, etc.) may be nesting in construction areas, especially in brushy or scrubby vegetation, during spring work. CONTRACTOR shall avoid disturbing any more vegetation than necessary to achieve the reclamation goals to reduce the risk of disturbing an active nest. If nests are found, CONTRACTOR shall reschedule work at those sites until later in the season.

2.05 RARE PLANT CONSERVATION

- A. One plant species listed as threatened under the Endangered Species Act may occur in the project area. It is the Ute Ladies'-tresses (*Spiranthes diluvialis*). OWNER will survey work areas for these plants prior to construction. Any plants found shall be flagged by OWNER and avoided by the work crews.
- B. Four other plant species considered rare and sensitive but not listed as threatened under the Endangered Species Act may occur in the project area. They are the Slender Moonwort and Dainty Moonwort (*Botrychium lineare* and *B. crenulatum*), Pohl's Milkvetch (*Astragalus lentiginosus* var. *pohlii*), and Coulter Biscuitroot (*Cymopterus coulteri*). OWNER will survey work areas for these plants prior to construction. Any plants found shall be flagged by OWNER and avoided by the work crews.

2.06 LAND PROTECTION

- A. Trash, containers, wrappings, empty mortar and concrete mix bags, concrete block fragments, rebar cuttings, welding rod scraps, waste PUF, pallets, water jugs, buckets, broken tools, discarded materials, food wrappers, beverage containers, paper towels, and other such litter generated by the reclamation activities shall be kept contained during construction and shall be cleaned up and removed from the site upon completion.
- B. CONTRACTOR shall exercise care with open flames when welding or cutting to avoid starting range fires. CONTRACTOR shall submit a written range fire prevention and fire response plan to OWNER at the start of construction.

2.07 LANDOWNER AND NEIGHBORHOOD RELATIONS

- A. CONTRACTOR shall be responsible to reimburse landowners or lease holders for livestock, fences, gates, or other property lost, injured, or damaged by CONTRACTOR's operations and/or traffic on access roads and trails.
- B. CONTRACTOR shall immediately close all gates after use as requested by landowners. The locked gates may have multiple locks on a chain. CONTRACTOR shall take care not to "lock out" other users when relocking a gate shared by multiple users.
- C. CONTRACTOR shall conduct all reclamation construction work in a timely manner that minimizes interference with or disturbance to nearby residents. CONTRACTOR shall organize the work to minimize the need to cross residential or cultivated property. CONTRACTOR is responsible for remedying all damage done to private residences and appurtenances, including landscaping, fences, and road surfaces.

2.08 ACCESS RESTRICTIONS

- A. Vehicles shall stay on existing roadways as much as possible and avoid cross-country trips across undisturbed areas except where necessary.

2.09 WORKER HEALTH AND SAFETY

- A. Rodents often nest in abandoned mines and leave accumulations of droppings and nest debris. In theory, these nests and droppings could host the potentially lethal hantavirus, although no mine closure work has ever been linked to a case of hantavirus. As a precaution, workers should avoid stirring up dust or rodent droppings in mines and use standard hygiene and sanitation practices (washing before eating, etc.). Workers are encouraged to learn to recognize the symptoms of hantavirus infection and seek proper medical attention if indicated.
- B. The heavy reliance on manual labor for this project and the steep, rugged terrain increase the probability of orthopedic and trauma injuries. Standard safety gear (hard hat, steel-toed shoes) are required for all personnel. Fatigue, heat stress, and dehydration are inherent medical risks of heavy manual labor in desert environments. Frostbite and hypothermia are risks of winter work. Workers should take appropriate precautions for the site conditions.
- C. CONTRACTOR is required to hold regular safety meetings and is encouraged to have a response plan in place in the event of accidents, personal injury, animal bites, or other medical emergency.
- D. All of Tooele County is covered by 911 emergency telephone service, but the project area has little reliable cell phone coverage.

PART 3 - EXECUTION

3.01 THE WORK

The WORK at the Vernon Sheeprocks Project area shall include closure of approximately 73 mine openings, burial of mine dumps and other earthwork at 10 sites, drainage channel construction, and revegetation of areas disturbed by reclamation work. Additional mine closures or earthwork may be added to the WORK as the project progresses if new mine openings are found or sites are re-evaluated.

- A. Mobilization/Demobilization. Mobilize labor, equipment, and supplies to the site in accordance with Section 0220: Mobilization/Demobilization, and as follows:
 - 1. Previously disturbed areas should be selected for staging and activity areas as much as possible. Vegetation grubbing and topsoil stripping and stockpiling shall not be done in staging areas.
 - 2. Vehicles and heavy equipment shall be thoroughly cleaned before entering the project area in order to prevent the introduction or spread of noxious weed seeds.
 - 3. There are minimal commercial services available in the project area. Vernon has a small market with gas, diesel, a café, and a pay phone. Eureka has all services and a small motel. Business operating hours are limited in both towns. Nephi and Delta have all services and lodging and are the closest towns to the southern flank canyons. Cell phone coverage is spotty and poor throughout the project area.
 - 4. Camping onsite is permitted to maintain security or reduce commuting time. Dispersed camping is allowed on Forest Service land for a maximum of 16 days at any one location. Vernon Reservoir has campsites with toilets, but does not have potable water. The picnic site on USFS Road #005 opposite Site 3100511HO001 has a hydrant with potable water, but no toilet. Dispersed camping is allowed on BLM-administered land for a maximum of 14 days at any one location. The BLM Little Sahara Recreation Area has fee camping. Landowner consent is required for camping on private land.
- B. Access Improvement. Improve access for labor, equipment, and supplies to the individual mine sites in accordance with Section 0230: Access Improvements, and as follows:
 - 1. Access into the project area is possible on the existing paved and primary dirt roads and requires little or no additional improvement. The secondary 4WD dirt roads up the canyons are subject to washouts, ruts, fallen trees, and rockfalls. Moderate access improvement is anticipated to be needed in numerous localized areas. This would likely be limited to cutting fallen trees, rolling rockfalls aside, and spot

grading of short segments of eroded roads.

2. No new access road construction will be allowed. Improve access to the individual mine openings by upgrading the existing dirt roads, ATV trails, and foot paths to the minimum degree required to conduct the WORK. Site access should require no or minimal improvement work in most areas. CONTRACTOR should generally expect to select the mode of transportation to fit the existing ground conditions rather than changing the ground to accommodate a vehicle. Access to many sites will require cross-country traverses. Access routes should be selected to avoid or minimize disturbance to vegetation and cultural resources. Access routes and improvements are subject to approval by OWNER. Except on main roads, work should be organized to minimize the number of repeat trips on a particular route to reduce trail wear and tear (this applies to foot traffic as well as to vehicles and equipment). Where possible, "one trip in, one trip out" is the goal.
3. CONTRACTOR shall remove access improvements and return roads to their pre-construction condition upon completion of work.
4. CONTRACTOR shall obliterate footprints, truck and ATV tire tracks, and crawler tracks by raking or similar means as directed by OWNER in areas where access routes deviate from existing established open roads. Severe trail wear or compaction may require mechanical scarification and reseeded.
5. The road up Joes Canyon (Subarea S5, Detail D6) has two gates with low-clearance overhead guy wires (6-8 feet clearance) supporting broken gate posts. CONTRACTOR shall repair or replace these wires and posts if it is necessary to remove them to get equipment to the sites.

C. Mine Closure. Close all identified mine openings, subsidence holes, and pits in accordance with the technical specifications in Sections 0250 through 0254, and as follows:

1. Use the closure method specified for each site in the "Closure Method" column of the table in Appendix A. Estimated closure dimensions and/or construction quantities (cubic yards of backfill; square feet of masonry wall, bat gate, or rebar grate; or cubic feet of PUF or concrete) for each closure are provided in Appendix A. (Note that quantities may be expressed in square feet, cubic feet, or cubic yards, depending on the material and type of closure. Do not confuse units.) Use the technical specification section and standard drawing referenced in Appendix A for each closure. The closure methods specified for the sites are shown on the maps in Appendix F.
2. Backfill closures specified in Appendix A are noted as either hand work or equipment work. These designations reflect OWNER's expectation for the backfill method, but are not binding. Mine openings scheduled for equipment backfill may be backfilled by hand and mine openings scheduled for hand backfill may be closed by equipment depending on circumstances on the ground. The choice of hand or machine backfill methods shall be determined in consultation with OWNER and is subject to OWNER's approval. Cost adjustments to the Bid Price may be made when backfill methods are changed. Cost adjustments will be negotiated based on the Variation in Quantity Unit Prices in the bid schedule for comparable work.
3. Wall closures specified in Appendix A are noted as either stone or concrete block. These designations reflect OWNER's expectation for the wall material, but are not binding. The designations are based on assessments of the onsite availability of suitable stone and the difficulty of transporting block to remote locations. Mine openings scheduled for stone walls may be closed with block walls, and vice versa. The choice of wall material shall be determined in consultation with OWNER and is subject to OWNER's approval. Cost adjustments to the Bid Price will not be made when a wall material is changed.
4. Concrete block walls shall be treated on the outer surface to blend with the adjacent native rock. Suitable treatments include facing the block wall with a layer of rock or plastering or stucco-ing with mortar mixed with local sand or soil. The intent is to camouflage the wall by matching the color and texture of the native rock. Camouflage treatments may be omitted at some sites at OWNER's direction depending on the visibility of the wall.
9. Three adits, Sites 3100609IO001, 3100610HO005 and 3100610HO016, are specified to be closed with rebar grates. Use the pinned rebar shaft grate design (see Section 0253, Part 3.03.G) with the grate

installed in a vertical plane across the opening. Rebar adit grates (mild steel rebar, 8"x8" grid) should not be confused with bat gates (Manganal steel, 6"x24" grid).

10. Site-specific variations to the generic closure methods are required at some mine openings. Some of these special requirements or customized details are noted in Appendix A. Not all such special requirements are so noted in Appendix A. Sites without such notes may still require site-specific variations to be determined during construction.
 11. Where present in a mine, bats will be excluded from the mine prior to installing the closure (see Section 0250, Part 3.01.F and Section 0300, Part 2.02). Mine sites requiring exclusion prior to closure are indicated in the "Special Conditions" column in Appendix A.
 12. One hundred eighteen (118) mine sites on the inventory list in Appendix A do not have closures specified at the time of bidding. Closures at these sites are designated "None" in Appendix A and on the bid sheets. In addition, new sites not on the inventory are commonly found during the course of reclamation. OWNER anticipates adding closures at newly discovered sites to the contract by means of contract change orders as engineering is completed. Costs for additional work will be negotiated based on the Variation in Quantity Unit Prices in the bid schedule for comparable work. Sites designated "None" in Appendix A (118 sites) are not expected to require closure work. In addition, some sites currently specified for closure may be dropped from the WORK if re-evaluation shows that they do not warrant closure.
- D. Site Grading/Earthwork (General). Perform earthwork to achieve reclamation objectives in accordance with Section 0270: Site Grading/Earthwork, and as follows:
1. At all sites, try to salvage existing vegetation and vegetated soil. When feasible, stockpile grubbed vegetation and upper soil layers to place on the surface of fill and use barren waste rock for the deeper fill. CONTRACTOR is encouraged to salvage whole live trees with root balls during grubbing for replanting on fill areas, if possible.
 2. The intent of the site grading and earthwork is to enhance the watersheds and improve water quality by burying or isolating mine dumps, removing mine dumps from stream channels, diverting mine water away from mine dumps, and re-establishing drainage channels.
 3. Site grading and earthwork may precede or follow mine closure work at the same location, depending on crew/equipment availability and the logistics of the situation. Later work should not undo earlier work. CONTRACTOR is responsible for fixing any damage to previously completed work.
 4. Estimated quantities for site grading and earthwork are based on the volume of mine dump material to be buried and do not reflect the total volume of material that must be moved in order to bury the dump (burial pit excavation, cover material stockpiling, dump grading, cover material spreading).
 5. Site grading and earthwork at some sites will incorporate the mine closure. At these sites, there will not be a separate mine closure item in the Bid Schedule.
 6. Sites where site grading/earthwork is required are summarized in Appendix B. The sites are shown on the maps in Appendix F.
- E. Site Grading/Earthwork (Specific). Perform earthwork to achieve reclamation objectives in accordance with Section 0270: Site Grading/Earthwork, and as follows:
1. Site 3100602HO001 (3100602WP001): (Harker Canyon, Map D2)

Description:
 This site is a cluster of openings that also includes 3100602HO002, 3100602SH001, and 3100602SH002. The site has a waste rock dump (3100602WP001) that is approximately 35 feet by 60-70 feet on top and is approximately 6-8 feet deep and extends about 20 vertical feet downslope. It contains an estimated 900 cubic yards of material.

Work:

Equipment access to the site is possible on an old road. It will be necessary to cross Harker Creek, which is small at this location. The objective of the work is to bury the mine dump as close to or upslope from its existing location as possible. The soil depth on the slope near the dump is unknown, but it appears shallow, and it may be less than one foot to bedrock. CONTRACTOR shall dig test holes on the north and west sides of the dump, working upslope until a suitable soil depth is found. The burial pit can expose and incorporate the mine portals and subsidence holes. Excavate a burial pit large enough to hold the dump and generate sufficient cover material. Strip the mine dump down to the native soil beneath and place the dump material in the pit or bury it with a minimum 18 inches of cover material from the pit. The final grade should blend with the adjacent hillside and be free of a noticeable hump or abrupt changes in slope. Scatter any grubbed trees and brush on the surface. Roughen the pit and dump areas to reduce erosion. An estimated 900 cubic yards of material will be buried. An area estimated at 150 feet by 200 feet (30,000 sf or 0.7 acres) will be disturbed.

2. Site 3100602HO003: (Harker Canyon, Map D2)

Description:

This mine is completely caved. It has a face-up trench in deep soil that is approximately 35'l x 12'w x 6'd. It has a waste rock dump that is approximately 30 feet by 30 feet on top and is approximately 6 feet deep and extends about 12-15 vertical feet downslope. It contains an estimated 250 cubic yards of material. The dump is well-vegetated with shrubs and trees, and has one large dead snag.

Work:

Equipment access to the site is possible on an old road and a short overland tram. It will be necessary to cross Harker Creek, which is small at this location. CONTRACTOR shall excavate a burial pit in the face-up and portal location. Excavate a burial pit large enough to hold the dump and generate sufficient cover material. It is possible that this excavation may reopen the mine. Grub the trees from the dump to expose the barren inner rock. Try to salvage some whole live trees with root balls. Strip the mine dump down to the native soil beneath and place the dump material in the pit (or mine, if the workings have been exposed) or bury it with a minimum 18 inches of cover material from the pit. The final grade should blend with the adjacent hillside and be free of a noticeable hump or abrupt changes in slope. Scatter the grubbed trees and brush on the surface. Roughen the pit and dump areas to reduce erosion. An estimated 250 cubic yards of material will be buried. An area estimated at 120 feet by 50 feet (6,000 sf or 0.1 acres) will be disturbed.

3. Site 3100522HC001: (Little Valley North, Map D4)

Description:

This mine consists of a face-up cut below and on the east side of the roadway. The adit is completely caved. The face-up scarp is approximately 25 feet wide by 75 feet long by 10 feet deep.

Work:

The objective of the work is to fill the head of the face-up cut to reduce the slope and eliminate the abrupt dropoff from the road above. Use material from the adjacent hillside as fill. The final grade should be no steeper than 3h:1v, should blend with the adjacent hillside, and be free of abrupt changes in slope. Roughen the fill area to reduce erosion. An estimated 150 cubic yards of material will be required to fill the mine. An area estimated at 100 feet by 100 feet (10,000 sf or 0.2 acres) will be disturbed.

4. Site 3100522HO001: (Little Valley North, Map D4)

Description:

This mine consists of some underground workings at the east end of an east-west trending open trench. The first 30 feet of the underground portion is a large irregular room 10-12 feet high by 10-25 feet wide, ending with a small drift to the east. The open trench portion is 15-25 wide by 140 feet long. The south side of the trench is a rock ledge about 20-25 feet high; the north side is a rock ledge 10 feet high (east end) or a rubble bank 6-8 feet high (west end). The excavated material has been dumped in the drainageway west of the trench and on the slope north of the trench.

Work:

The objective of the work is to remove the spoil banks from the adjacent slope and drainageway and use them to backfill the underground mine workings and the surface trench. CONTRACTOR shall backfill the entire underground portion of the mine from the small drift out to the surface and the trench from the brow to at least 75 feet west past the alcove on the south side. The trench fill shall be brought up to match the north side (leaving 10-15 feet of rock ledge exposed on the south side). The final grade should blend with the adjacent hillside to the north and be free of abrupt changes in slope. Re-establish a broad swale drainage channel through the work area, routed as directed by OWNER, to tie into the undisturbed reaches above and below. Keep a vehicle crossing in the channel. Roughen the pit and dump areas to reduce erosion. Except for drainage work, all of the grading and backfill should be south of the access road. An estimated 200 cubic yards of material will be required to fill the mine interior and another estimated 900 cubic yards will be needed to fill the open trench, for a total of 1100 cubic yards. An area estimated at 300 feet by 200 feet (60,000 sf or 1.4 acres) will be disturbed.

5. Site 3100522TR001: (Little Valley North, Map D4)*Description:*

This open cut mine is an L-shaped trench with legs approximately 100 feet long each. The east-west leg is 12-20 feet wide and about 15 feet deep; the north-south leg is a sloping ramp about 20 feet wide, sloping from 0-15 feet deep. Excavated material has been cast out of the trench along the sides of the two legs and at the southeast corner.

Work:

CONTRACTOR shall fill the trench back to the approximate original grade, using the adjacent spoil banks. The final grade should blend with the adjacent hillside and be free of abrupt changes in slope. Roughen the pit and dump areas to reduce erosion. An estimated 1200 cubic yards of material will be required to fill the trench. An area estimated at 250 feet by 250 feet (62,500 sf or 1.4 acres) will be disturbed.

6. Site 3100522TR002: (Little Valley North, Map D4)*Description:*

This open cut mine is a trench approximately 80 feet long, 12-20 feet wide, and 18 feet deep at the end cut. Excavated material has been cast out of the trench. There is a large area of general ground disturbance with dumps and smaller excavations around the trench.

Work:

CONTRACTOR shall fill the trench back to the approximate original grade, using the adjacent spoil banks and dumps. The final grade should blend with the adjacent hillside and be free of abrupt changes in slope. Roughen the pit and dump areas to reduce erosion. An estimated 600 cubic yards of material will be required to fill the trench. An area estimated at 100 feet by 100 feet (10,000 sf or 0.2 acres) will be disturbed.

7. Site 3100614HO002 (3100614WP001): (Hard to Beat North, Map D9)*Description:*

This mine has a three-lobed waste rock dump (3100614WP001) that is approximately 60 feet by 90 feet on the top and approximately 45 feet deep. It contains an estimated 10,000 cubic yards of material. The toe of the dump is in the creek channel. The mine portal discharges water, which is routed in a ditch along the south edge of the dump; there is also seepage through the dump. There are a pile of steel rails and an ore car on the southern end of the pile.

Work:

The objective of the work is to remove the mine dump from the creek channel and regrade it to the slope southwest of the mine portal. The final shape of the reworked dump should mimic that of a typical historic mine dump, but with its toe outside of and above the creek channel. CONTRACTOR shall set the steel rails and ore car aside where they will not interfere with the earthwork. Then excavate a diversion ditch to carry the mine water north so that it runs down the slope between the road cut and the east side of the mine dump. Grub the vegetation from the hillside southwest of the dump. Strip and stockpile the soil from this area. Grade the dump to the southwest, removing the material

from the creek and keeping it out of the creek channel. The final grade should have a “classic” mine dump shape, with a flat top and triangular cross-section. The top of the regraded dump should be at the same elevation as the existing dump. Scatter the grubbed vegetation and salvaged soil on the surface. Roughen the dump to reduce erosion. An estimated 10,000 cubic yards of material will be moved. An area estimated at 400 feet by 150 feet (60,000 sf or 1.4 acres) will be disturbed. Note: The earthwork at this site may be redesigned at time of construction based on re-evaluation of field conditions and unpatented claimholder input.

8. Site 3100615HO001 (3100615WP002): (Hard to Beat North, Map D9)

Description:

This mine has a waste rock dump (3100615WP002) that is approximately 40' x 33' on top and is approximately 10' deep and extends about 15 vertical feet downslope. There is a lobe extending to the southwest that is approximately 10'w x 25'l x 10'd. The dump contains an estimated 500 cubic yards of material. There is a large elderberry bush growing on the toe of the dump at the southeast corner.

Work:

The objective of the work is to bury the mine dump as close to its existing location and as far upslope as possible (staying away from the creek channel). The soil depth on the slope near the dump is unknown, but it appears shallow, and it may be less than three feet to bedrock. CONTRACTOR shall dig test holes in the clearing on the northeast side of the dump, working upslope and northeast into the chokecherry scrub until a suitable soil depth is found. Excavate a burial pit large enough to hold the dump and generate sufficient cover material. Strip the mine dump down to the native soil beneath and place the dump material in the pit or bury it with a minimum 18 inches of cover material from the pit. Try to preserve the large elderberry bush and other large trees growing on the toe of the dump. The final grade should blend with the adjacent hillside and be free of a noticeable hump or abrupt changes in slope. Scatter the grubbed trees and brush on the surface. Roughen the pit and dump areas to reduce erosion. An estimated 500 cubic yards of material will be buried. An area estimated at 100 feet by 150 feet (15,000 sf or 0.3 acres) will be disturbed.

9. Site 3090620VO001: (East Gov't/No. Oak Brush/Harker, Map S2)

Description:

This mine is a 6' x 6' x 20'd shaft inside a 10' x 10' x 7'h alcove cut in the corner of a face-up that is approximately 25'l x 25'w x 20'd. A drift heads to the southwest at the bottom of the shaft. There is a bank of rubble 7 feet high along the base of the face-up that partially blocks the entrance to the mine. The mine has a waste rock dump that is approximately 30 feet by 25 feet on top and is approximately 8 feet deep and extends about 20 vertical feet downslope. It contains an estimated 270 cubic yards of material. There is a stockpile of about 40 cubic yards of segregated ore on the east side of the dump, making a total estimate of 310 cubic yards of material in the dump. There is a bench or road cut continuing west from the face-up that is about 12'w x 50'l with a cut bank 6-8'h.

Work:

Equipment access to the site is possible on an old road. The objective of the work is to backfill the shaft and the face-up to restore the site to its approximate premining topography. CONTRACTOR shall grub brush and trees from the dump and face-up and salvage available topsoil and cover material. Excavate the rubble bank to clear access to the shaft. Backfill the shaft, using the ore stockpile and barren rock from the dump first. Strip the mine dump down to the native soil beneath and place the dump material in the face-up and bury it with a minimum 18 inches of cover material. Backfill the bench west of the face-up by pulling up soil from the outslope. The final grade should blend with the adjacent hillside and be free of abrupt changes in slope. Scatter the grubbed trees and brush on the surface. Roughen the face-up and dump areas to reduce erosion. An estimated 50 cubic yards of material will be used to fill the shaft, an estimated 200 cubic yards of material will be used to backfill the face-up, and an estimated 40 cubic yards of material will be excavated and placed to backfill the bench west of the face-up, for an estimated total of 290 cubic yards of material to be moved. An area estimated at 100 feet by 50 feet (5,000 sf or 0.1 acres) will be disturbed.

10. Site 3100524HO001: (Vernon/Little Valley, Map S4)*Description:*

This mine is a large open cut on a hillside easily visible from USFS Road #005 (the Vernon Creek road). There is no adit; any underground workings have been daylighted by the surface work or have caved in. The site consists of an open cut approximately 40 feet wide by 50 feet long by 40 feet high that has a waste rock dump that is approximately 75 feet by 45 feet on top and is approximately 15 feet deep and extends about 35 vertical feet downslope. The dump contains an estimated 2,000 cubic yards of material.

Work:

The objective of the work is to backfill the open cut with material from the dump. Grub the vegetation from the dump and stockpile the grubbed vegetation and the surface layer of soil for use later. Place material from the dump in the open cut to restore the approximate premining contour, but with a final slope no steeper than 2h:1v. Grade any remaining dump material upslope towards the cut. The final grade should blend with the adjacent hillside and be free of abrupt changes in slope. Spread the stockpiled soil and grubbed vegetation on the surface. Roughen the pit and dump areas to reduce erosion. An estimated 1200 cubic yards of material will be buried. An area estimated at 120 feet by 150 feet (18,000 sf or 0.4 acres) will be disturbed.

F. Revegetation. Revegetate all areas disturbed by reclamation activities in accordance with Section 0290: Revegetation, and as follows:

1. Disturbed areas include staging areas, access routes, backfilled portals and shafts, regraded areas, and backfill borrow areas. Areas of bare rock, rock ledges, and rocky outcrops of mine dumps do not need to be revegetated.
2. Use the Vernon Sheeprocks seed mixture (Appendix C). A total area estimated at 2.0 acres will need to be revegetated for the mine closures and a total area estimated at 6.2 acres will need to be revegetated for the earthwork, for an estimated project total of 8.2 acres. The actual revegetation area will vary depending on the CONTRACTOR's diligence in executing the work and limiting disturbance.
3. Revegetation of mine closure disturbance shall be considered incidental to installation of the mine closures. Costs of revegetating mine closure disturbance shall be incorporated into the costs for Mine Closure. Revegetation is not included as a separate bid or pay item for mine closures, but is considered subsidiary to the mine closures. No separate payment shall be made for Revegetation at mine closure locations.
3. Revegetation shall be considered a separate bid and payment item at the ten sites scheduled for site grading and earthwork in Part 3.01.D above and listed in Appendix B. Separate payment shall be made for Revegetation at site grading/earthwork locations. (Equipment backfill mine closures are not "site grading/earthwork" for bidding and payment purposes, even though the nature of the work and disturbance may be similar.)
4. Mulch and fertilizer shall not be required.

3.02 CONSTRUCTION SCHEDULING

- A. High elevation snowpack and muddy roads from late season snowmelt may preclude access to parts of the project and force temporary suspension of WORK. The start-up date for resumption of WORK suspended due to adverse weather or other conditions will be determined by OWNER in consultation with CONTRACTOR and will depend upon the nature of the uncompleted WORK.

END OF SECTION 0300

APPENDICES

Appendix A

Site Descriptions and Mine Closure Schedule

Appendix B

Site Grading/Earthwork Schedule

Appendix C

Revegetation Seed Mix

Appendix D

Contractor Report Forms

Appendix E

Standard Mine Closure Design Drawings

Appendix F

Project Location and Site Maps

Appendix A: Site Descriptions & Mine Closure Schedule

Note: Refer to Section 0300, Part 1.03.C of the Specifications for a description of the site ID numbering (tag number) system.

Use the following technical specification section and standard design drawing in Appendix E for each closure type referenced in Appendix A:

Closure Type	Specification Section	Standard Mine Closure Design Drawing Appendix E
BACKFILL (ADIT): Hand or Equipment	0250, Part 3.02	E1
BACKFILL (SHAFT): Hand or Equipment	0250, Part 3.02	E2
WALL (BLOCK)	0250, Part 3.02	E3
WALL (STONE)	0250, Part 3.02	E4
BAT GATE	0253, Part 3.02	E6 and E7
CMP BAT GATE	0253, Part 3.04	E10 and E11
REBAR GRATE (GRADE BEAM & I-BEAM)	0253, Part 3.03	E14, E15, and E16
REBAR GRATE (PINNED)	0253, Part 3.03.G	E17

Appendix A

Site Description and Mine Closure Schedule

Refer to Section 0300, Part 1.03.C of the Specifications for a description of the site ID numbering (tag number) system.

Refer to Section 0300, Part 1.04 of the Specifications for a description of the project map organization system (subareas and details). Sites are listed here in tag number sequence within each detail map grouping.

There are many small prospects for which no work is planned that are not tagged or mapped and are simply included in the descriptions of tagged features.

Site ID/Tag No.	UTM Coordinates	Description of Mine Opening Dimensions/Key Features	Special Conditions	Closure Method/Comments	Estimated Quantity
North Oak Brush: Map D1					
3100604HC001	4,426,061 mN 370,275 mE	fully caved; prospect 10' to N; 500' to 4WD trail; dump visible across canyon and NE of 3100609HO003	ROE	None	na
3100604HO002	4,426,382 mN 369,926 mE	portal obscured by thicket of fallen dead willows; opening probably approx. 6'h x 6'w; water discharge; next to road	ROE	BACKFILL (Equip) Install drain pipe in fill.	30 cy
3100609HC005	4,425,583 mN 369,769 mE	surface prospect w/extensive disturbance; main scarp ~20'w x ~20'h; disturbed area ~100' x 100'	NR Elig	None	na
3100609HC006	4,425,826 mN 369,602 mE	prospect or fully caved adit; face-up scarp 15'w x 20'l x 4'd; also 2 smaller cuts on either side; long shallow dump	NR Elig	None	na
3100609HC007	4,425,879 mN 369,657 mE	drift appears ~6'h x 6'w x unk d; opening caved to 1.5'h x 1'w; face-up 10'w x 20'l x 4'd; steel rails protruding from mine, sheet metal	NR Elig	BACKFILL (Hand)	5 cy
3100609HC008	4,425,980 mN 369,850 mE	prospect; box cut ~15'w x 12'd x 12'h; wood structure w/hoist hardware located to NW of mine		None	na
3100609HC008a	4,425,932 mN 369,699 mE	probably a bogus site; possibly old 09HO008?, need to confirm	NR Elig	None	na
3100609HC009	4,425,647 mN 369,549 mE	fully caved; face-up scarp approx. 20'w x 40'l x 5'd; part of large mine complex w/stone cabin, track, machine parts	NR Elig	None	na

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3100609HO002	4,425,860 mN 370,253 mE	originally inventoried opening not found as mapped; opening mostly caved; timbers visible; subsidence depressions upslope; large root across brow; orange dump visible from 09HO003; upslope and SW of 03HO003	Bat Excl NR Elig ROE	None	na
3100609HO003	4,425,961 mN 370,210 mE	6'h x 5'w x40'+d; steel rails lead from mine NW to tram loadout; water discharge	NR Elig ROE	BAT GATE 6'h x 5'w with drainage provisions.	30 sf
3100609PR001	4,425,711 mN 370,015 mE	10' x 15' x 4'd bowl-like pit in colluvium	NR Elig	None	na
3100609PR002	4,425,823 mN 370,291 mE	10'w x 20'l x 10'd box cut in rock, red dump	NR Elig ROE	None	na
Harker Canyon: Map D2					
3100602HO001	4,426,113 mN 372,548 mE	fully caved		None Closure included in earthwork task.	na
3100602HO002	4,426,118 mN 372,551 mE	fully caved, obliterated		None Closure included in earthwork task.	na
3100602HO003	4,426,057 mN 372,553 mE	fully caved; face-up cut ~30'l x 12'w x 7'd; track on dump; wood post at brow; in brush	Bat Excl	None Closure included in earthwork task.	na
3100602PR001	4,426,097 mN 372,549 mE	8'diam x 3'd		None	na
3100602PR002	4,426,072 mN 372,552 mE	face-up cut 15'l x 10'w x 5'd; ~100' N of 3100602HO003		None	na
3100602SH001	4,426,122 mN 372,546 mE	10'diam x 5'd; animal burrows; in brush, obscure		None	na
3100602SH002	4,426,128 mN 372,551 mE	8'diam x 3'd; animal burrows; in brush, obscure		None	na
3100603PR001	4,426,118 mN 371,731 mE	fully caved	ROE	None	na

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3100610HC001	4,425,880 mN 371,456 mE	fully caved; face-up scarp approx. 75'l x 25'w x 10'd; water discharge; steel rails protruding from portal onto dump	NR Elig ROE	None	na
3100610HC002	4,425,877 mN 372,082 mE	caved w/weathered face-up trench; spring 10' from HO; hunter's tree stand in aspen next to HO	ROE	None	na
3100610HC003	4,425,838 mN 372,032 mE	mostly caved; 10' E of 3100610VO001; large boulder in front of opening	ROE	None	na
3100610HC004	4,425,553 mN 371,366 mE	large oval crater ~25' x 75' x 8'd in colluvium; weathered banks; possible subsidence feature for 3100610IO002; directly upslope of 3100610IO002	NR Elig ROE	None	na
3100610HC005	4,425,757 mN 371,566 mE	odd-shaped boxy cut ~20' x 25' x 5-12'd; small undercut 1.5'h x 6'w x 3'd on W end blocked by boulders; 5' boulder in center of cut; also 6' x 6' x 4'd prospect just N of main cut; mountain mahoganies on red dump	NR Elig ROE	None	na
3100610HC006	4,425,776 mN 371,319 mE	fully caved; 25'w x 130'l face-up trench from angle of 150'l L-shaped dump; water discharge (seepage) ponded on dump; also small prospect upslope of portal; hunter's tree stand in aspen nearby	NR Elig ROE	None	na
3100610HC007	4,425,697 mN 371,258 mE	fully caved; 12'w x 30'l x 5'd face-up scarp in soil is weathered and overgrown; also a second scarp 25'diam x 5'd in aspen 25' to S	NR Elig ROE	None	na
3100610HO001	4,425,590 mN 371,960 mE	6'h x 5'w x 15'd; face-up 10'l x 6'w x 10'd; in massive rock		BACKFILL (Hand)	20 cy
3100610HO002	4,425,599 mN 371,975 mE	5'h x 5'w x 15'+d; face-up trench 15'l x 6'w x 6'd; connects to 10HO3; opens up to 14'w at 15'd at junction with 10HO003		BACKFILL (Hand)	15 cy
3100610HO003	4,425,600 mN 371,981 mE	4'h x 5'w x 15'+d; connects to 10HO2 at 8'd; opens up to 14'w at 8'd at junction with 10HO002; shares face-up with 10HO004		BACKFILL (Hand)	10 cy

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3100610HO004	4,425,603 mN 371,983 mE	5'h x 3'w x 12'd; opening caved to 1'h x 3'w; shares face-up with 10HO003		BACKFILL (Hand)	8 cy
3100610HO005	4,425,624 mN 371,993 mE	opening 6'h x 12'w; opens up inside; 3 short drifts (1 inclined down); long face-up trench; 5 timber props		REBAR GRATE 6'h x 11'w, pinned. Install vertical grate outside opening against brow. Dig down to competent sill. The slabby top may need extra timbers for support.	66 sf
3100610HO006	4,425,589 mN 372,021 mE	drift 6-7'h x 8'w x 15'd with 3'h x 4'w x 8'd extension at end; opening caved to 2'h x 4'w; face-up 6-8'w x 25'l x 8'd		BACKFILL (Hand) Fill 10' deep. Use dump for fill.	20 cy
3100610HO007	4,425,563 mN 371,376 mE	drift 4-5'h x 6'w x 11'd; opening caved to 1.5'h; face-up ~6'w x 12'l x 8'd	NR Elig ROE	BACKFILL (Hand) Partial backfill (4' deep). Use fill from sloughage in face-up and available scrounged surface rock. Do not dig soil.	5 cy
3100610HO008	4,425,753 mN 371,537 mE	drift 5'h x 6'w x 22'd; face-up cut 10'w x 11-15'l x 8'd in rock; some spalling of shaley rock inside mine from tree roots; mtn mahoganies on dump	NR Elig ROE	BACKFILL (Hand) Partial backfill or dry-stacked rock wall approx. 5'h x 6'w x 5'd.	6 cy
3100610HO009	4,425,649 mN 371,844 mE	6'h x 5'w x 35'd; opening caved to 2'h x 4'w; drift to S at 10'd		BACKFILL (Hand)	20 cy
3100610HO010	4,425,743 mN 371,344 mE	6'h x 5'w x 50'+d; driven into competent but fractured rock; face-up 20'l x 8'w x 12'd; berm of sloughed material in front of opening; steel track in place inside and onto dump	NR Elig ROE	WALL (Stone) 6'h x 5'w with drainage provisions. Clear sloughage for free drainage.	30 sf
3100610HO011	4,425,623 mN 372,001 mE	fully caved adit or a prospect; shares face-up with 10HO005; no depth		None	na

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3100610HO012	4,425,649 mN 371,344 mE	drift is irregular room 9-10'h x 20'w x 40'd with 6'h x 6'w x 12'd sidecut to SW and another sidecut to NE immediately inside portal opening; portal is approx 7'h x 6'w, divided by a horizontal rock pillar and partly blocked by sloughage into 1'h x 3'w and 4'h x 6'w openings; 4"x4" wood post inside; large orange/tan dump	NR Elig ROE	BAT GATE 6'h x 7'w. Knock out rock pillar and trim to competent rock. Level off rubble in portal and drive rebar spikes into rubble to prevent digging under. Build concrete footer.	42 sf
3100610HO013	4,425,677 mN 371,342 mE	6'h x 5'w x 65'd; opening caved to 3'h; connects to 3100610IO005 at 35'd and opens up to 15'h x 10-12'w	Bat Excl NR Elig ROE	WALL (Stone) 6'h x 5'w	30 sf
3100610HO014	4,425,644 mN 371,264 mE	site not relocated since original inventory; possibly same as 10PR001?	NR Elig ROE	None	na
3100610HO015	4,425,657 mN 371,105 mE	5'h x 5.5'w x 40'+d; 6'h x 6'w at brow; in massive, competent rock; flooded winze at ~50'd; also prospect located 10' to E mostly filled w/rubble to 1'h x 5'w x 5'd	Bat Excl ROE	WALL (Stone) 6'h x 6'w Very difficult foot access through steep, dense scrub.	36 sf
3100610HO016	4,425,822 mN 370,966 mE	9'h x 4-5'w at brow; drops to 7'h at 10'd; 30'd; face-up cut 20'l x 5-8'w; in massive rock; short timber prop across top of opening; tram cable next to HO; timbers, rubber hose on ground	NR Elig ROE	REBAR GRATE 8'h x 5'w, pinned Install grate just inby timber prop. Set timbers inside.	40 sf
3100610HO017	4,425,765 mN 371,502 mE	6'h x 5'w x 50'+d; sidecut to left (ESE) at 15'd; deep winze at 23'd; berm of sloughed rock reduces opening to 3'h	Bat Excl NR Elig ROE	WALL (Stone) 6'h x 5'w Suggestion: Pack materials to PR19, then rig rope tram to convey mortar buckets 50-60' to HO.	30 sf
3100610HO018	4,425,630 mN 371,322 mE	3'h x 3'w x 7'd opening in S side of 12' x 20' face-up scarp; drift is 4'h; drift runs parallel to slope and breaks out to surface in a 3'h x 6'w opening in a 9'diam x 1.5'd soil scarp; there is a second gopher-sized hole in the NE corner of the main face-up scarp	NR Elig ROE	BACKFILL (Hand) Try to daylight workings by scaling back both brows. Minimize disturbance to adjacent slopes.	5 cy

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3100610HO019	4,425,684 mN 371,237 mE	short adit in rock in a large face-up; opening 6'h x 6'w x 12'd with 4'h x 6'w x 5'd alcove on S side; face-up scarp approx 25'w x 80'l x 10'd in deep soil; aspen grove at toe of scarp	NR Elig ROE	None	na
3100610HO020	4,425,751 mN 370,983 mE	5'h x 4'w x 20'd; opening caved to 1'h x 2'w; face-up trench 4'w x 10'l; face-up mostly filled with rubble; approx. 10' NE of 10PR008	ROE	BACKFILL (Hand) Excavate to reopen before filling.	8 cy
3100610IO001	4,425,538 mN 371,373 mE	drift 4'h x 7'w x 6'd; opening caved to 2'h x 4'w; weathered face-up scarp ~20'w x 25'l x 6'd in colluvium; dense shrubs obscure opening	Bat Excl NR Elig ROE	None	na
3100610IO002	4,425,553 mN 371,384 mE	drift appears ~6'h x 6'w x unk d; opening caved to 1'h x 1'w; weathered face-up 9'w x 20'l x 12'd; may be caved by 3100610HC004	Bat Excl NR Elig ROE	BACKFILL (Hand) Excavate to reopen. Use material from 10HC4 for fill.	10 cy
3100610IO003	4,425,558 mN 371,381 mE	opening caved to 0.5' x 1'; internal dimensions unknown, probably ~5'h x 6'w; weathered face-up 7'w x 12'l x 7'd; face-up and dump overgrown with vegetation	Bat Excl NR Elig ROE	BACKFILL (Hand) Excavate to reopen. Scale down brow for fill.	5 cy
3100610IO004	4,425,714 mN 371,483 mE	~5'h x 6'w x unk d; opening caved to 1' x 3'; face-up 15'l; large mountain mahogany on dump	Bat Excl NR Elig ROE	BACKFILL (Hand)	15 cy
3100610IO005	4,425,678 mN 371,345 mE	opening 6'h x 8'w in rock; connects to 3100610HO013 at 10'd to form large room 15'h x 10-12'w	NR Elig ROE	REBAR GRATE 6' x 9', pinned	72 sf
3100610IO006	4,425,687 mN 371,374 mE	very steep incline, becomes vertical halfway down; 10' x 10' at collar, narrows to 6' x 6'; 16'd; at base of rock outcrop which partially overhangs opening on S and E sides	Bat Excl NR Elig ROE	BACKFILL (Hand) Fill to 3' below grade. Gather fill from rock ledges to west of IO. Do not strip soil for fill.	20 cy
3100610PR001	4,425,736 mN 371,422 mE	8'w x 10'l x 8'd cut in rock; undercut 5'h x 5'w x 4'd at face	NR Elig ROE	None	na

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3100610PR002	4,425,532 mN 371,374 mE	face-up cut ~10'w x 20'l x 5'd in colluvium; 15' S of 3100610IO001; weathered and overgrown with vegetation	NR Elig ROE	None	na
3100610PR003	4,425,666 mN 371,394 mE	6'w x 6'l x 3'd box cut in rock; near ridgeline	NR Elig ROE	None	na
3100610PR004	4,425,656 mN 371,360 mE	10'w x 6'l x 8'd box cut in rock; slightly undercut 3'h x 3'd at end	NR Elig ROE	None	na
3100610PR005	4,425,637 mN 371,332 mE	probably a subsidence feature (no dump); 10' x 18' x 5-6'd crater between two rock outcrops; 2' x 2' opening at NW corner goes down approx. 10-12' to connect to a larger void	NR Elig ROE	BACKFILL (Hand) Try to choke off opening.	2 cy
3100610PR007	4,425,631 mN 371,305 mE	boxy cut in rock approx 10'w x 10'l x 6'd; also an adjacent soil scarp approx 8'w x 20'l x 2'd	NR Elig	None	na
3100610PR008	4,425,749 mN 370,984 mE	weathered face-up cut ~25'l x 12'w x 4'd	ROE	None	na
3100610PR009	4,425,736 mN 370,986 mE	face-up cut in rock ~30'l x 12'w x 6'd; large dump	ROE	None	na
3100610PR010	4,425,727 mN 370,985 mE	short adit 5'h x 7'w x 10'd, widens to 12'w at 4'd; in competent rock	ROE	None	na
3100610PR011	4,425,706 mN 370,999 mE	probably a road cut; no depth	ROE	None	na
3100610PR012	4,425,692 mN 370,963 mE	no excavation evident, dump possibly natural talus	ROE	None	na
3100610PR013	4,425,648 mN 371,062 mE	unk dims; site not relocated since original inventory	ROE	None	na
3100610PR014	4,425,847 mN 370,972 mE	possible surface work on rock outcrop; no depth; downslope from 3100610HO016	NR Elig ROE	None	na

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3100610PR015	4,425,823 mN 370,955 mE	short adit 6'h x 6'w x 7'd; in massive rock; face-up 15'l x 7'w x 10'd; 10' SW and upslope of 3100610HO016; anchor pins for aerial tram cable	NR Elig ROE	None	na
3100610PR016	4,425,823 mN 370,938 mE	weathered face-up cut 20'l x 10'w x 6'd	NR Elig ROE	None	na
3100610PR017	4,425,890 mN 370,953 mE	weathered face-up cut 15'l x 8'w x 6'd	NR Elig	None	na
3100610PR018	4,425,770 mN 371,005 mE	8'l x 6'w x 6'd cut in massive rock; mostly filled by a 3' x 4' x 6' boulder rockfall	ROE	None	na
3100610PR019	4,425,746 mN 371,492 mE	open cut in rock approx. 40' x 20' x 15'd; 2 undercut areas on E side (5'h x 6'w x 6'd and 3'h x 8'w x 6'd; also 2 adjacent soil scarps	NR Elig ROE	None	na
3100610PR020	4,425,631 mN 371,967 mE	large open cut approx 25'w x 25'l x 10'd; black rock	ROE	None	na
3100610PR021	4,425,633 mN 372,022 mE	area of shallow surface work approx 30' x 50'	ROE	None	na
3100610PR022	4,425,607 mN 372,024 mE	12' x 20' x 5'd crater	ROE	None	na
3100610PR023	4,425,585 mN 371,969 mE	face-up trench 5-10'w x 12'l x 6'd with 3'h x 5'w x 4'd adit		None	na
3100610VO001	4,425,834 mN 372,022 mE	9' x 10' x 9'd; drift at bottom; collar shored w/8"x8" RR ties and 2" planks; boards covering opening; standing water inside, stagnant	ROE	BACKFILL (Equip) Install drain pipe in fill.	50 cy
3100611HC001	4,425,919 mN 372,566 mE	20'l face-up tre	ROE	None	na
Bennion: Map D3					
3100517HO001	4,422,870 mN 377,050 mE	4'h x 5'w x 10'd drift at bottom of 4' x 5' x 6'd hole; located at top of rock outcrop on east side		BACKFILL (Hand)	7 cy

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3100517SH001	4,422,874 mN 377,054 mE	12'diam x 5'd crater immediately upslope of 3100517HO001		None	na
3100518HC001	4,423,354 mN 376,427 mE	unk dims; opening caved to 1'h x 4'w		None	na
3100518HO001	4,423,380 mN 376,456 mE	6'h x 8'w x 50'+d; 10'w at brow; arched opening; wood and corrugated tin closure; water discharge		BAT GATE 6'h x 8'w with drainage provisions.	48 sf
3100518HO002	4,423,334 mN 376,412 mE	3'h x 4'w x 15'd prospect; large face-up cut		BACKFILL (Hand)	5 cy
3100518IO001	4,423,431 mN 376,717 mE	3-4'h x 5'w x 20'd; short face-up trench; adjacent to road		BACKFILL (Hand)	15 cy
3100518PR001	4,423,280 mN 376,805 mE	3'h x 6'w x 10'd		None	na
3100518VC001	4,423,438 mN 376,722 mE	~10' x 15' x 4'd; adjacent to 3100518IO001		None	na
3100518VO001	4,422,945 mN 376,978 mE	boxy trench 25'l x 5-8'w x 8' max d		BACKFILL (Equip)	20 cy
3100518VO002	4,423,256 mN 376,819 mE	12' x 8' collar narrows to 8' x 4'; plugged at 6'd w/timbers and rocks; may be bridged; 2"x6" boards and pipe nearby		BACKFILL (Hand)	10 cy
3100613HC001	4,423,644 mN 374,649 mE	30'diam x 6-10'd pit at S end of face-up trench ~30'l x 10w x 6'd	ROE	None	na
3100613HC002	4,423,619 mN 374,642 mE	~30' x 60' x 10'd bowl-like excavation/trench; adjacent to 3100613HC001 next to ATV trail	ROE	None	na
3100613HC003	4,423,627 mN 374,861 mE	face-up cut ~60'l x 20'w x 10'd; downslope (NE) from 3100613VO001	ROE	None	na
3100613HC004	4,423,673 mN 374,867 mE	fully caved in colluvium; weathered face-up ~20'l x 10'w x 3'd; downslope (NE) from 3100613HC003 and VO001	ROE	None	na

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3100613HC005	4,423,597 mN 374,308 mE	face-up cut ~25'l x 10'w x 7'd; in rock; 2 logs nearby	ROE	None	na
3100613HC006	4,423,517 mN 374,254 mE	face-up ~40'l x 10'w x 3'd; badger-sized hole at end		None	na
3100613HC007	4,423,513 mN 374,253 mE	face-up ~40'l x 15'w x 4'd		None	na
3100613HC008	4,423,509 mN 374,245 mE	face-up ~30'l x 15'w x 6'd		None	na
3100613HC009	4,423,505 mN 374,251 mE	face-up ~20'l x 15'w x 6'd		None	na
3100613HC010	4,423,379 mN 374,595 mE	fully caved adit has been dug open by vandals; opening 2'h x 2'w; drift probably approx. 6'h x 6'w; face-up scarp ~20'w x 25'l x 15'd; large dump	ROE	WALL (Block) 6'h x 6'w	36 sf
3100613PT001	4,423,663 mN 374,523 mE	2'd	ROE	None	na
3100613VO001	4,423,611 mN 374,856 mE	irregular shape; 8' x 8' at collar, narrows but may flare out at bottom; 25+'d; very small dump for size, may have been driven as a raise from 310613HC003	ROE	REBAR GRATE 8' x 10', pinned	80 sf
Little Valley North: Map D4					
3100520HO001	4,421,875 mN 377,506 mE	6'h x 4'w x 25+'d; opening caved to 3'h x 3'w; 4' x 8' x unk'd winze with pipes and 2"x12"s 3' inby brow; face-up 4-5'w x 14-20'l x 10'd	Bat Excl	WALL (Block) 6'h x 4'w. Caution: winze inside, limited work area.	24 sf
3100521HO001	4,422,448 mN 380,134 mE	5'h x 2'w x 10+'d; connects to 3100521HO002/VO001/VO002	NR Elig	BAT GATE 5'h x 3'w	15 sf
3100521HO002	4,422,422 mN 380,134 mE	5'h x 5'w x 10+'d; connects to 3100521HO001/VO001/VO002	NR Elig	REBAR GRATE 8' x 8', pinned, custom fit	64 sf

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3100521VO001	4,422,448 mN 380,179 mE	collar 15' x 7' x 8'd to crosscut; planks and timbers; old bedframe nearby; connects to 3100521HO001/HO002/VO001	NR Elig	REBAR GRATE 15' x 10', pinned	150 sf
3100521VO002	4,422,431 mN 380,157 mE	5' x 8' x 16'+d winze just inside 3100521HO002; planks and timbers	NR Elig	None Closed by 3110521HO002 closure.	na
3100522HC001	4,422,452 mN 380,261 mE	fully caved; face-up scarp ~75'l x 25'w x 10'd; just E of road; in shaley soil	NR Elig	None Closure included in earthwork task.	na
3100522HO001	4,422,436 mN 380,229 mE	complex geometry, large opening in worked outcrop; rock archway; 3 prospects nearby	NR Elig	None Closure included in earthwork task.	na
3100522PR001	4,422,419 mN 380,246 mE	15' diam x 5'd	NR Elig	None	na
3100522PR002	4,422,465 mN 380,282 mE	approx. 12' x 30' x 5'd; scattered lumber	NR Elig	None	na
3100522PR003	4,422,464 mN 380,282 mE	approx. 15' x 20' x 7'd; scattered lumber	NR Elig	None	na
3100522TR001	4,422,096 mN 380,392 mE	L-shaped, 100' and 75' x 20' max d x 20 avg w; several nearby prospects; steel barrel		None Closure included in earthwork task.	na
3100522TR002	4,422,055 mN 380,291 mE	open cut 12-20'w x 80'l x 0-18'd; also approx. 1 acre general surface disturbance: small prospects, dumps, etc. nearby		None Closure included in earthwork task.	na
3100522VO001	4,422,392 mN 380,372 mE	7'diam x 15'd; irregular cross-section; bottom undercut on E side; ~100' S of road	NR Elig	BACKFILL (Equip)	25 cy
Little Valley South: Map D5					
3100521VC001	4,421,278 mN 379,628 mE	8' x 8' x 6'd; steel rails in VO; fallen hoist nearby; also 3 small untaged prospects near road across valley to SW		BACKFILL (Equip)	15 cy

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3100528HC001	4,420,758 mN 379,194 mE	face-up scarp 30'l x 15'w x 6'd; in deep colluvial soil; rail protruding from fill; in thick brush; badger-sized hole in fill exhausting cool air		None	na
3100528HC002	4,420,776 mN 379,244 mE	face-up 25'l x 8'w x 5'd; badger-sized hole in fill; no dump; in thick scrub		None	na
3100528IO001	4,420,906 mN 379,064 mE	5'h x 4'w opening; deep winze at 2'd; alcove ~5'h x 3'w x 8'd inby winze; winze is approx. 6' x 6' x 40'd; timbers in front of and inside opening		BAT GATE 5'h x 4'w. ATV access within 100'.	20 sf
3100528PR001	4,420,710 mN 379,221 mE	bowl-like crater approx 20' x 30' x 6'd	ROE	None	na
3100528PR002	4,420,705 mN 379,209 mE	face-up cut 10'w x 10'l x 8'd; section of duct pipe on ground	ROE	None	na
3100528PR003	4,420,704 mN 379,199 mE	face-up cut 15'w x 15'l x 10'd	ROE	None	na
3100528PR004	4,420,859 mN 378,618 mE	unk dims; downslope from 3101528VO001		None	na
3100528PR005	4,420,848 mN 378,609 mE	unk dims; upslope from 3101528VO001		None	na
3100528PR006	4,420,767 mN 379,277 mE	two adjacent cuts: 6'w x 12'l x 6'd and 10'w x 10'l x 6'd		None	na
3100528VO001	4,420,853 mN 378,615 mE	8' x 10' x 40-60'd; narrows to 3' x 5' at 20'd; little or no dump; claim post 20' to E		REBAR GRATE 8' x 11', pinned	88 sf
3100529IO001	4,421,012 mN 378,492 mE	6'h x 5'w x 30+; opening caved to 4'h x 5'w; 5' x 7' x 5'd winze at 6'd; drift is 6'h x 3'w; rail		BAT GATE 6'h x 5'w. Install gate immediately outby winze. Excavate rubble down to competent sill.	30 sf

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3100529IO002	4,421,054 mN 378,442 mE	6'h x 4'w x 15'-20'd; opening caved to 2'h x 3'w; possibly caved by 29VC002?; RR tie on dump		BACKFILL (Hand) Slide fill down from 29VC1 and 29VC2 dump.	20 cy
3100529PR001	4,421,024 mN 378,485 mE	unk dims; ~30' W of 3100529IO001		None	na
3100529PR002	4,421,052 mN 378,486 mE	face-up cut 15'w x 50'l x 10'd; ~70' W of 3100529IO001 and below 29IO002		None	na
3100529VC001	4,421,055 mN 378,419 mE	open cut prospect ~20' diam x 10'd; in dump upslope from 3100529IO002		None	na
3100529VC002	4,421,055 mN 378,432 mE	12'diam x 4'd crater; badger-sized hole at bottom; possible subsidence of 29IO002; in dump upslope from 3100529IO002		None	na
Joess Canyon: Map D6					
3100624HO001	4,422,120 mN 374,031 mE	opening caved to 3'h x 4'w; 8'w inside; 40'+d; standing water; structure, steel barrels, timbers in vicinity	Bat Excl	WALL (Block) 4'h x 8'w with drainage provisions.	32 sf
3100624HO002	4,422,138 mN 374,084 mE	5'h x 3.5'w x 45'+d; 4'h x 3'w at brow; shallow standing water inside w/discharge		BAT GATE 6'h x 4'w with drainage provisions.	24 sf
3100624HO003	4,421,622 mN 374,461 mE	fully caved; gopher-sized hole in fill; face-up scarp 15'w x 15'l x 6'd	Bat Excl	BACKFILL (Equip) Probe to test fill. Low clearance gates on access road.	15 cy
3100624PR001	4,421,435 mN 374,572 mE	short adit 4'h x 7'w x 5'd in face-up cut in rock 10'w x 15'l x 10'h; also 10'diam x 2'd diggings on top of ridge ~30' to E; claim post ~75' S of upper diggings		None	na
3100624VC001	4,422,148 mN 374,096 mE	1-4'w x 20'l x 10'max d trench w/rock bridge; near crest of ridge above 24HO2		None	na
3100624VO001	4,421,626 mN 374,480 mE	8' x 8' x 16'd		BACKFILL (Equip) Low clearance gates on access road.	40 cy

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3100624VO002	4,422,148 mN 374,105 mE	approx. 6' x 5' x 15'd; on E side of ridge above 24HO002		BACKFILL (Hand)	20 cy
Sheeprock: Map D7					
3100623HC001	4,421,701 mN 372,785 mE	caved; collapsed wood structure covers opening; water discharge; steel rails extending from opening and stacked outside; also prospect ~100' upslope to E		None	na
3100623IO001	4,421,582 mN 372,842 mE	face-up cut in rock 15'w x 15'l x 15'h; 9' x 9' x 9'd drift or pit below grade partly covered with timbers and rock rubble; steel plate and timbers in front of opening		BACKFILL (Hand) Remove timbers to expose void. Fill to grade (leave face-up).	25 cy
3100623PR001	4,421,571 mN 372,823 mE	faced-up outcrop at end of road cut; cut bank in rock approx. 10'h x 30'l w/bench; no depth		None	na
3100623VC001	4,421,600 mN 372,766 mE	approx. 20' x 30' x 6'd		None	na
Hard to Beat South: Map D8					
3100621PR001	4,421,960 mN 369,663 mE	group of 3 dozer scrapes in deep soil; shallow, flat trenches with berms of pushed soil at ends; mostly revegetated		None	na
3100622HO001	4,421,853 mN 370,863 mE	8'h x 6'w x 55'd; face-up cut in rock 10'w x 20'l x 12'd; drift enlarges to 8-9'h inside; 6"x6" x 10'l timber prop diagonally across top of opening; claim papers on prop	Bat Excl	WALL (Block) 8'h x 6'w	48 sf
3100622HO002	4,421,742 mN 371,096 mE	7-8'h x 6'w x 50+ 'd; alcove on left at 30'd; ribs are flat and tilted following joint planes in rock; track runs from opening across dump; wood wedges in some cracks; drum device inside	NR Elig	BAT GATE 8'h x 7'w at 5'd.	56 sf

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Hard to Beat North: Map D9					
3100614HC001	4,423,689 mN 373,112 mE	fully caved; speculative, may be road cut	NR Elig	None	na
3100614HC002	4,422,955 mN 373,234 mE	caved; face-up trench 45'l x 20'w x 4'd		None	na
3100614HC003	4,423,670 mN 373,005 mE	fully caved; colluvial slope; face-up scarp 10'w x 20'l x 4'd; staked as 14HC002	NR Elig	None	na
3100614HO001	4,423,659 mN 373,026 mE	5-6'h x 3-4'w x 20'd; opening caved to 1.5'h x 2'w	NR Elig	None	na
3100614HO002	4,423,379 mN 372,209 mE	5-8'h x 6'w x 50+'d; first 10' timbered; water discharge; large dump; steel rails, ore car; claim papers posted	Bat Excl NR Elig	BAT GATE 7'h x 6'w with drainage provisions. This closure may be changed or deleted. Also earthwork at this site to regrade dump.	42 sf
3100614VC001	4,423,651 mN 372,950 mE	16'diam x 6'd	NR Elig	None	na
3100614VC002	4,423,619 mN 373,131 mE	10' x 18' x 5'd	NR Elig	None	na
3100614VO001	4,423,613 mN 372,956 mE	triangular face-up pit 20' x 11' x 10'd w/inclined drift at bottom; drift opening 2'h x 5'w x 10+'d; wood framework, steel rails	NR Elig	BACKFILL (Equip) Avoid structure.	10 cy
3100615HC002	4,423,248 mN 371,968 mE	prospect in quartzite outcrop w/small dump; no depth; obscure; ~50' NE of 3100615HO001		None	na
3100615HO001	4,423,223 mN 371,963 mE	6'h x 5'w x 200+'d, opening caved to 2'h x 3'w; standing water inside 2-1'd; steel rails on sill and dump; claim papers		BAT GATE 6'h x 5'w with drainage provisions. Also earthwork at this site to bury dump.	30 sf

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Cottonwood: Map D10					
3100615HC001	4,423,339 mN 370,878 mE	fully caved	ROE	None	na
3100615HC003	4,423,465 mN 371,402 mE	fully caved; staked as 15HC001		None	na
3100615HC004	4,423,735 mN 371,013 mE	fully caved; face-up ~10'w x 30'l x 4'd; in deep soil; part of site complex with large dump (15WP001), cap magazine, developed spring, ore car	NR Elig ROE	None	na
3100615VC001	4,423,737 mN 370,990 mE	really a prospect; shallow trench 10' w x 17'l x 3'd	NR Elig ROE	None	na
3100615VC002	4,423,750 mN 370,977 mE	really a prospect; 11' x 14' x 4'd; rust-colored dump	NR Elig ROE	None	na
South Pine: Map D11					
3100609HC001	4,424,999 mN 369,723 mE	site not relocated since original inventory; possibly a landslide scarp ~300' S of 3100609HO001?	ROE	None	na
3100609HC002	4,425,005 mN 369,809 mE	fully caved; face-up 25'l x 6'w x 8'd; across drainage from 3100609HO001	ROE	None	na
3100609HC003	4,424,904 mN 369,467 mE			None	na
3100609HC004	4,425,232 mN 369,227 mE	fully caved; large orange dump; across drainage ~600' W of 3100609HO001; also 15' x 10' x 3'd prospect 30' to W		None	na
3100609HO001	4,425,040 mN 369,755 mE	7'h x 7'w x 40'?d; arched opening; log prop diagonally in opening; can hear water dripping inside; spring impoundment upslope; A TV access w/in 200'	Bat Excl ROE	WALL (Stone) 7'h x 7'w with drainage provisions.	49 sf
3100609IO001	4,425,164 mN 369,492 mE	7'h x 8'w x 100+'d; steel track on sill and dump	ROE	REBAR GRATE 8'h x 8'w, pinned	64 sf

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3100609VO001	4,425,227 mN 369,206 mE	4' x 7' x 12'd; black dump; ~100' W of 3100609HC004 (large orange dump)		BACKFILL (Hand)	15 cy
South Oak Brush: Map D12					
3100607HC001	4,425,015 mN 366,724 mE	fully caved; face-up scarp ~40' x 20'w x 6'd; ~200' upslope (E) of 3100607HO001	NR Elig	None	na
3100607HC002	4,425,064 mN 366,342 mE	fully caved; face-up 80' x 20-25'w x 10-12'd; spring water discharge; impoundment; collapsed structures nearby	NR Elig	None	na
3100607HC003	4,426,058 mN 366,738 mE	fully caved; face-up 30' x 12'w x 6'd		None	na
3100607HC004	4,426,074 mN 366,767 mE	fully caved; face-up 30' x 10'w x 3'd; weathered and overgrown; has prominent dump for its size; fence crosses face-up		None	na
3100607HO001	4,425,027 mN 366,700 mE	7'h x 4'w x 50+'d; partly caved; driven into deep colluvial soil and rotten granite	NR Elig	CMP BAT GATE 3' diameter	1 ls
3100607HO002	4,425,994 mN 366,731 mE	5'h x 8'w x 10+'d; opening caved to 2'h x 5'w at brow; 20' face-up trench; water discharge; standing water inside 1-2'd	Bat Excl	BACKFILL (Equip) Install drain pipe in fill.	50 cy
3100607HO003	4,426,074 mN 366,716 mE	6'h x 6'w x 40'd; opening caved to 3'h x 6'w; sill drops ~3' at 20'd; fence crosses top of dump	Bat Excl	WALL (Block) 6'h x 6'w	36 sf
3100607HO004	4,425,475 mN 366,438 mE	4'h x 6'w x 10+'d; opening caved to 2'h x 4'w; behind 3100607VO003; also 3'h x 6'w x 10'd prospect 15' to N	Bat Excl	BACKFILL (Equip) Also fill adjacent untaged prospect.	17 cy
3100607HO005	4,426,042 mN 366,718 mE	almost completely caved; 6'h x 2'w opening above fill; in deep colluvial soil; ~200' N of 3100607HO002	Bat Excl	BACKFILL (Equip) Probe to test fill.	15 cy
3100607HO006	4,425,274 mN 366,308 mE	mostly caved; opening 2'h x 4'w x 5'd, pinches out to gopher-sized hole; face-up 25' x 12'w x 6'd; reddish dump visible from distance	NR Elig	BACKFILL (Hand) Try to choke off opening.	1 cy

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3100607PR001	4,425,263 mN 366,753 mE	10' x 30' x 5'd; near 3100607VO001; also small trench; collapsed building, garbage in area	NR Elig	None	na
3100607PT001	4,425,500 mN 366,441 mE	face-up cut 15'l x 8'w x 5'd; above large dump N of 07HO004/07VO003		None	na
3100607PT002	4,425,505 mN 366,444 mE	face-up cut 30'l x 12'w x 4'd; above large dump N of 07HO004/07VO003		None	na
3100607VC001	4,425,493 mN 366,438 mE	25' x 15' x 5'd crater; possible HC?		None	na
3100607VO001	4,425,222 mN 366,746 mE	main shaft 7' x 7' x 25-30'd; trench extends from N & S sides ~10'l x 3'w x 10'd; notched timber beam w/cable placed across opening; steel bolt in adjacent rock; may sometimes be flooded	NR Elig	BACKFILL (Equip) Fill to 3' below grade. Remove and replace wood beam.	60 cy
3100607VO002	4,425,997 mN 366,783 mE	complex geometry; collar 8' x 12'; splits into 2 drifts at 17'd; timbers inside; large dump; may be bridged	Bat Excl	BACKFILL (Equip) Remove timbers.	200 cy
3100607VO003	4,425,473 mN 366,440 mE	6' x 6' x 35'd; directly in front of 3100607HO004	Bat Excl	BACKFILL (Equip)	50 cy
3100607VO004	4,425,043 mN 366,463 mE	9' x 12' x 22'd; narrows to 6' x 7'; collar 17' x 20'; short drift to W at bottom; in burned over P-J area	Bat Excl NR Elig	BACKFILL (Equip)	90 cy
3100607VO005	4,425,030 mN 366,482 mE	steep incline 7' x 7' x 30'-d; drift at bottom (sounds ~30'd); inclined to SW; in soil trench 50'l x 15'w x 5'd; green moss growing on rock at depth	Bat Excl NR Elig	BACKFILL (Equip)	110 cy
Sites not in a Detail Map Area (see the indicated Subarea Map)					
3090620VO001	4,431,309 mN 368,147 mE	5' x 7' x 25'd (from top of berm) winze in 6'h x 9'w x 12'd adit; partly blocked by soil berm; timbers; corrugated sheet metal	Bat Excl	None Closure included in earthwork task.	na
3090627IO001	4,428,532 mN 371,836 mE	5-7'h x 5-7'w x 40'd; juniper in front of opening; tan dump	Bat Excl	BACKFILL (Equip) Tram across sage slope from springs. Closure will tear out juniper in front of opening.	60 cy

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Site Description and Mine Closure Schedule

Site ID/Tag No.	UTM Coordinates	Description of Mine Opening Dimensions/Key Features	Special Conditions	Closure Method/Comments	Estimated Quantity
3090627PR001 Subarea Map S2	4,428,532 mN 371,824 mE	10'w x 30'l x 4'd face-up cut 200' downslope (W) of 3090627IO001; grey dump		None	na
3090711VO001 Subarea Map S1	4,433,556 mN 363,593 mE	10' x 10' collar narrows to 4' x 4 at 10'd; ~25'd?; blocky boulder rubble in front of VO; ~400' up draw from end of road		BACKFILL (Hand)	30 cy
3100503HC001 Subarea Map S4	4,426,278 mN 381,720 mE	appears to be an old adit that has been daylighted by more recent excavation; remnant drift 2'h x 2'w x 2'd; face-up cut approx. 15'w x 18'l x 10'd in colluvium and fractured rock; dozar cut to SE of opening		None	na
3100511HO001 Subarea Map S4	4,424,615 mN 382,661 mE	6'h x 4'w x 100'+d; opening caved to 3'h x 3'w; flooded; visible from main road		BAT GATE 6'h x 4'w with drainage provisions.	24 sf
3100524HO001 Subarea Map S4	4,422,477 mN 384,515 mE	appears fully caved; face-up cut ~60'l x 30'w x 30'd; visible from road		None Closure included in earthwork task.	na

The following Site ID's/Tag Numbers from the original inventory are not included in the table above because they are not mine openings:

3100602WP001
3100610WP001
3100614WP001
3100615WP001
3100615WP002
3100622HR001

The following Site ID's/Tag Numbers from the original inventory are not included in the table above because they are obsolete or superseded by new numbers:

3100604HO001
3100610PR006
3100623HC002

All locations and dimensions are approximate and have not been field verified. Construction quantities are estimated and will be confirmed at time of construction. UTM coordinates are all in Zone 12. Refer to Section 0300, Part 1.03.C of the Specifications for a description of the site ID numbering (tag number) system. Dimensions are in feet. h= high/height, w= wide/width, l= long/length, d=deep/depth, diam= diameter, unk= unknown, w/= with, ~/approx= approximately. Compass directions= N, NW, E, SE, S, etc. Special Conditions: Bat Excl= bat exclusion required, NR Elig= National Register eligible site, ROE= site on private property (confirm Right of Entry before commencing work).

Appendix A

Site Description and Mine Closure Schedule

SITES LISTED BY CLOSURE TYPE AND ESTIMATED QUANTITY

BACKFILL (Hand) Total: 26 sites, 322 cy							
3100607HO006	1 cy	3100610HO008	6 cy	3100518IO001	15 cy	3100610HO009	20 cy
3100610PR005	2 cy	3100517HO001	7 cy	3100609VO001	15 cy	3100610IO006	20 cy
3100518HO002	5 cy	3100610HO004	8 cy	3100610HO002	15 cy	3100624VO002	20 cy
3100609HC007	5 cy	3100610HO020	8 cy	3100610IO004	15 cy	3100623IO001	25 cy
3100610HO007	5 cy	3100518VO002	10 cy	3100529IO002	20 cy	3090711VO001	30 cy
3100610HO018	5 cy	3100610HO003	10 cy	3100610HO001	20 cy		
3100610IO003	5 cy	3100610IO002	10 cy	3100610HO006	20 cy		
BACKFILL (Equip) Total: 17 sites, 857 cy							
3100614VO001	10 cy	3100518VO001	20 cy	3100607VO003	50 cy	3100607VO005	110 cy
3100521VC001	15 cy	3100522VO001	25 cy	3100610VO001	50 cy	3100607VO002	200 cy
3100607HO005	15 cy	3100604HO002	30 cy	3090627IO001	60 cy		
3100624HO003	15 cy	3100624VO001	40 cy	3100607VO001	60 cy		
3100607HO004	17 cy	3100607HO002	50 cy	3100607VO004	90 cy		
BAT GATE Total: 12 sites, 361 sf, plus 1 CMP gate							
3100607HO001	1 lump	CMP	3100624HO002	24 sf	6'h x 4'w *	3100610HO012	42 sf
3100521HO001	15 sf	5'h x 3'w	3100529IO001	30 sf	6'h x 5'w	3100614HO002	42 sf
3100528IO001	20 sf	5'h x 4'w	3100609HO003	30 sf	6'h x 5'w *	3100518HO001	48 sf
3100511HO001	24 sf	6'h x 4'w *	3100615HO001	30 sf	6'h x 5'w *	3100622HO002	56 sf
REBAR GRATE Total: 8 sites, 624 sf							
3100610HO016	40 sf	8'h x 5'w **	3100610HO005	66 sf	6'h x 11'w **	3100528VO001	88 sf
3100521HO002	64 sf	8' x 8'	3100610IO005	72 sf	6' x 9'	3100521VO001	150 sf
3100609IO001	64 sf	8'h x 8'w **	3100613VO001	80 sf	8' x 10'		
WALL (Block or Stone) Total: 10 sites, 351 sf							
3100520HO001	24 sf	6'h x 4'w	3100624HO001	32 sf	4'h x 8'w *	3100622HO001	48 sf
3100610HO010	30 sf	6'h x 5'w *	3100607HO003	36 sf	6'h x 6'w	3100609HO001	49 sf
3100610HO013	30 sf	6'h x 5'w	3100610HO015	36 sf	6'h x 6'w		
3100610HO017	30 sf	6'h x 5'w	3100613HC010	36 sf	6'h x 6'w		

* drainage provision required

** grate installed vertically to close an adit

All rebar grates are “pinned” (no concrete grade beam required).

Appendix A

Site Description and Mine Closure Schedule

NONE (No mine closure work required) Total: 118 sites

3090620VO001	3100529PR001	3100609HC004	3100610PR007	3100613HC007
3090627PR001	3100529PR002	3100609HC005	3100610PR008	3100613HC008
3100503HC001	3100529VC001	3100609HC006	3100610PR009	3100613HC009
3100517SH001	3100529VC002	3100609HC008	3100610PR010	3100613PT001
3100518HC001	3100602HO001 ***	3100609HC008a	3100610PR011	3100614HC001
3100518PR001	3100602HO002	3100609HC009	3100610PR012	3100614HC002
3100518VC001	3100602HO003 ***	3100609HO002	3100610PR013	3100614HC003
3100521VO002	3100602PR001	3100609PR001	3100610PR014	3100614HO001
3100522HC001 ***	3100602PR002	3100609PR002	3100610PR015	3100614VC001
3100522HO001 ***	3100602SH001	3100610HC001	3100610PR016	3100614VC002
3100522PR001	3100602SH002	3100610HC002	3100610PR017	3100615HC001
3100522PR002	3100603PR001	3100610HC003	3100610PR018	3100615HC002
3100522PR003	3100604HC001	3100610HC004	3100610PR019	3100615HC003
3100522TR001 ***	3100607HC001	3100610HC005	3100610PR020	3100615HC004
3100522TR002 ***	3100607HC002	3100610HC006	3100610PR021	3100615VC001
3100524HO001 ***	3100607HC003	3100610HC007	3100610PR022	3100615VC002
3100528HC001	3100607HC004	3100610HO011	3100610PR023	3100621PR001
3100528HC002	3100607PR001	3100610HO014	3100611HC001	3100623HC001
3100528PR001	3100607PT001	3100610HO019	3100613HC001	3100623PR001
3100528PR002	3100607PT002	3100610IO001	3100613HC002	3100623VC001
3100528PR003	3100607VC001	3100610PR001	3100613HC003	3100624PR001
3100528PR004	3100609HC001	3100610PR002	3100613HC004	3100624VC001
3100528PR005	3100609HC002	3100610PR003	3100613HC005	
3100528PR006	3100609HC003	3100610PR004	3100613HC006	

*** Site Grading/Earthwork at this site.

NONE (obsolete tag numbers) Total: 3 sites

3100604HO001
3100610PR006
3100623HC002

Appendix A
Site Description and Mine Closure Schedule

Appendix B: Site Grading/Earthwork Schedule

This table is a summary of the earthwork. See Section 0300 Part 3.01.E for details of the earthwork to be performed at each site listed here.

See Section 0270: Site Grading/Earthwork for a general description of the earthwork to be performed.

Estimated quantities for site grading and earthwork are estimates of the mine dump volume and do not reflect the total quantity of material that must be moved to complete the work.

Site ID/Tag No.	Detail Map Reference	Description of Work	Estimated Quantity
3100602HO001 (3100602WP001)	Harker Canyon Map D2	Excavate pit and bury dump. Earthwork includes mine closure.	900 cy
3100602HO003	Harker Canyon Map D2	Excavate pit and bury dump. Earthwork includes mine closure.	250 cy
3100522HC001	Little Valley North Map D4	Backfill face-up to reduce slope below road. Earthwork includes mine closure.	150 cy
3100522HO001	Little Valley North Map D4	Backfill the underground mine workings and the surface trench. Restore drainageway. Earthwork includes mine closure.	1100 cy
3100522TR001	Little Valley North Map D4	Backfill trench.	1200 cy
3100522TR002	Little Valley North Map D4	Backfill trench.	600 cy
3100614HO002 (3100614WP001)	Hard to Beat North Map D9	Regrade dump out of creek channel. Recreate "typical" mine dump shape. Install channel for mine discharge. Mine closure spec'ed separately.	10,000 cy
3100615HO001 (3100615WP002)	Hard to Beat North Map D9	Excavate pit and bury dump. Mine closure spec'ed separately.	500 cy
3090620VO001	East Gov't/No. Oak Brush/Harker Subarea Map S2 (No Detail Map)	Backfill shaft, face-up cut, and bench west of face-up. Earthwork includes mine closure.	290 cy
3100524HO001	Vernon/Little Valley Subarea Map S4 (No Detail Map)	Backfill the open cut with material from the dump. Earthwork includes mine closure.	1200 cy

Appendix C: Revegetation Seed Mix

VERNON SHEEPROCKS SEED MIX

Seed Mix Composition

<u>Common Name</u>	<u>Scientific name</u>	<u>Pounds PLS/Acre</u>
Grasses		
Slender wheatgrass	<i>Elymus trachycaulus ssp trachycaulus</i> <i>var San Luis (Agropyron trachycaulus)</i>	1.70
Bluebunch wheatgrass	<i>Pseudoroegneria spicata ssp. spicata</i> <i>(Agropyron spicatum)</i>	6.00
Sandberg bluegrass	<i>Poa secunda (P. sandbergii)</i>	0.50
Indian ricegrass	<i>Stipa (Oryzopsis) hymenoides</i>	7.00
Letterman's needlegrass	<i>Stipa lettermanii</i>	0.40
Forbs		
White Yarrow	<i>Achillea millefolium</i>	0.20
Blue flax	<i>Linum lewisii</i>	1.30
Firecracker penstemon	<i>Penstemon eatonii</i>	0.30
American vetch	<i>Vicia americana</i>	3.30
Shrubs		
Mountain big sagebrush	<i>Artemisia tridentata var. vaseyana</i>	0.50
Mountain mahogany	<i>Cercocarpus ledifolius</i>	2.00
Rubber rabbitbrush	<i>Chrysothamnus nauseosus</i>	1.00
Douglas rabbitbrush	<i>Chrysothamnus viscidiflorus</i>	0.50
		====
		24.70

The planting rate indicated (pounds PLS/acre) is for broadcast seeding.

PLS= Pure Live Seed

Because packaged seed contains nonviable seed, chaff, and other inert materials in addition to live seed, the actual application rate of total seed material will be greater than 24.7 pounds per acre.

Seed Mix Quantity Estimate

8.2 estimated acres @ 24.7 lbs PLS/acre = 202.5 lbs PLS mix required.

Because packaged seed contains nonviable seed, chaff, and other inert materials, the actual quantity of seed material received from the supplier will be greater than 202.5 pounds.

Substitutions

The following substitutions may be made for all or part of the specified quantities:

Northern sweetvetch (*Hedysarum boreale*), or
Silverleaf lupine (*Lupinus argenteus*), or
Mountain lupine (*Lupinus alpestris*) for American vetch (*Vicia americana*)

Wasatch penstemon (*Penstemon cyananthus*) for Firecracker penstemon (*Penstemon eatonii*)

Other substitutions will require OWNER's approval.

Appendix D: Contractor Report Forms

AMR/045/910/C

DAILY CONSTRUCTION PROGRESS REPORT -- CONTRACTOR --

Project: Vernon Sheeprocks Date: _____ M T W Th F

Crew: _____ Supervisor: _____ Hours: _____ to _____

Equipment: _____

_____ down from _____ to _____ for _____

General description of work performed, equipment/material deliveries, etc:

_____ (Attach as-built drawings as required.)

WORK items approved: _____

Problems/delays and proposed or actual resolution. DOGM action required? Yes No

Visitors & purpose: _____

Temp: 20 30 40 50 60 70 80 90 100 Comments:

Sky: fair pc mc cldy ovrcst rain snow

Ground: dry wet muddy snow ____" frozen

Project is approximately ☐ on schedule

Contract expires:

____ days behind schedule

____/____/____

____ days ahead of schedule

Contractor: _____ ____/____/____

Proj Mgr: _____ ____/____/____

AMR Admin: _____ ____/____/____

Page 1 of

Appendix D: Contractor Report Forms

Page 2

CONTRACTOR PERFORMANCE RATING

Contractor: _____

Project: Vernon Sheeprocks AMR/045/910/C

Start Date: / / 2005

End Date: / / 2005 Duration: days

Rating: Satisfactory= 1; Unsatisfactory= 0

- _____ 1.Achieved the specified level of project quality and quantity.
- _____ 2.Prompt, diligent, and systematic prosecution of work.
- _____ 3.Adequate personnel (number and skill level).
- _____ 4.Adequate equipment (number, type, and operating condition).
- _____ 5.Effective on-site management and supervision of work.
- _____ 6.Cooperation, responsiveness, and communication with inspector and project manager.
- _____ 7.Cooperation and timely response in negotiation of contract changes.
- _____ 8.Cooperation in negotiation of claims.
- _____ 9.Record of prompt payment for labor, materials, equipment, and subcontract work.
- _____ 10.On-time submission of necessary documents and reports.
- _____ 11.Compliance with all applicable federal, state, and local laws and regulations.
- _____ 12.Minimized the adverse effect of construction activities on the public and the environment.
- _____ 13.Cooperation with landowners and/or utilities.

_____ = **Total = Performance Rating**

Attach explanations of all "Unsatisfactory" ratings.

Rated by: _____ Date _____

Reviewed by: _____ Date _____

A contractor with a Performance Rating (or average rating if there is more than one rating) of 9 or less fails to pre-qualify.

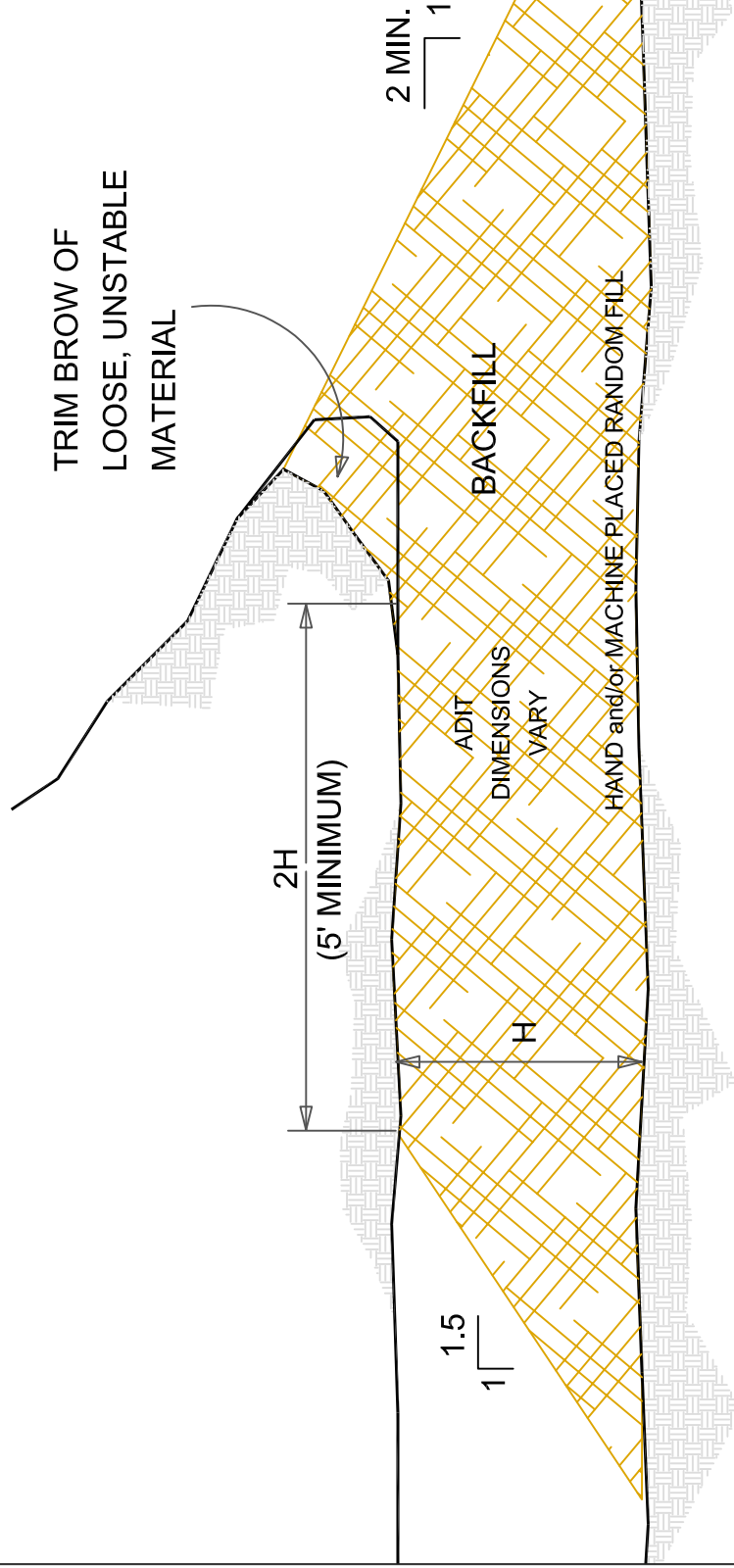
7/20/88 Rev 7/25/91


Appendix E: Standard Mine Closure Design Drawings

Sheet E1	Adit Backfill Closure
Sheet E2	Shaft Backfill Closure
Sheet E3	Block Wall Closure
Sheet E4	Native Stone Wall Closure
Sheet E5	Wall and Backfill Closure
Sheet E6	Bat Gate Closure
Sheet E7	Bat Gate Closure Details
Sheet E10	CMP Bat Gate Closure
Sheet E11	CMP Bat Gate Closure Details
Sheet E14	Rebar Shaft Grate Closure
Sheet E15	Rebar Shaft Grate (With I-Beam)
Sheet E16	Rebar Shaft Grate (Pinned)
Sheet E17	Rebar Shaft Grate Grade Beam Details

Note:

Standard mine closure design drawings E5, E8, E9, E12, E13, E18, and E19 have been omitted from this project.



 <p>UTAH NATURAL RESOURCES Oil, Gas and Mining Abandoned Mine Reclamation Program</p>	MINE RECLAMATION PROJECT		ADIT BACKFILL CLOSURE	
	Scale: as noted		Design: LAA Drafting: JCR	
	Refer to Spec Section 0200's		Sheet E1 of E19	

SLOPE FILL TO DRAIN AWAY
FROM SHAFT
MOUND FILL TO ALLOW
FOR SETTLING

5 FT

RANDOM ROCK FILL

UNCONSOLIDATED SOIL/ROCK

GEOTEXTILE FILTER CLOTH
MIRAFI 700X OR EQUIVALENT

DEPTH VARIES

RANDOM ROCK FILL

COMPETENT ROCK

SHAFT BACKFILL CLOSURE

Design: LAA Drafting: JCR

Scale: as noted

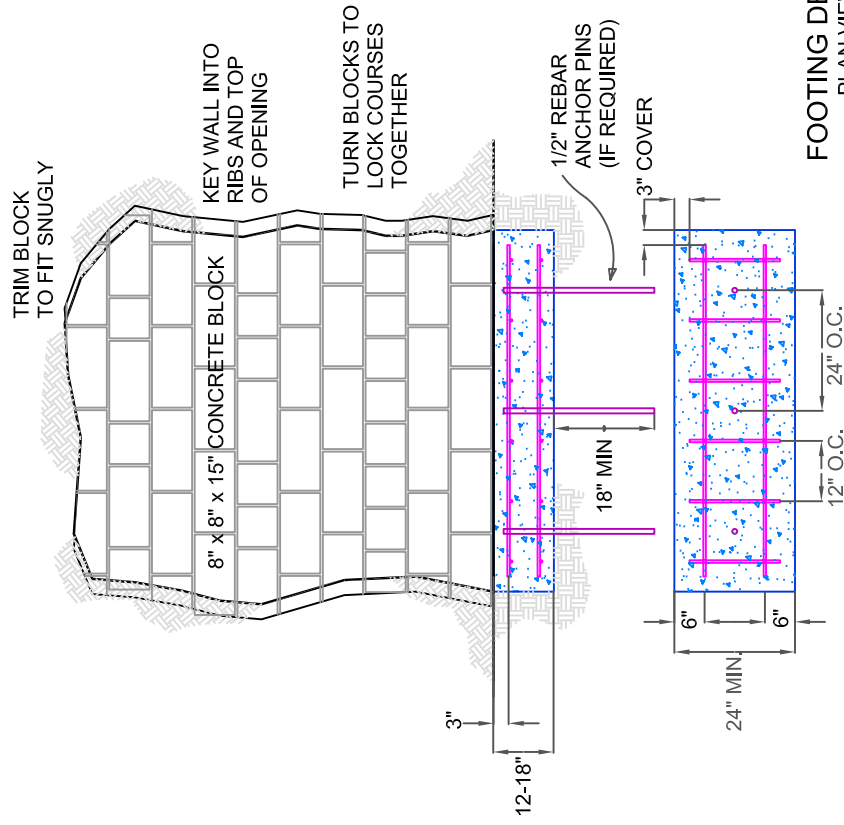
Sheet E2 of E19

**MINE RECLAMATION
PROJECT**

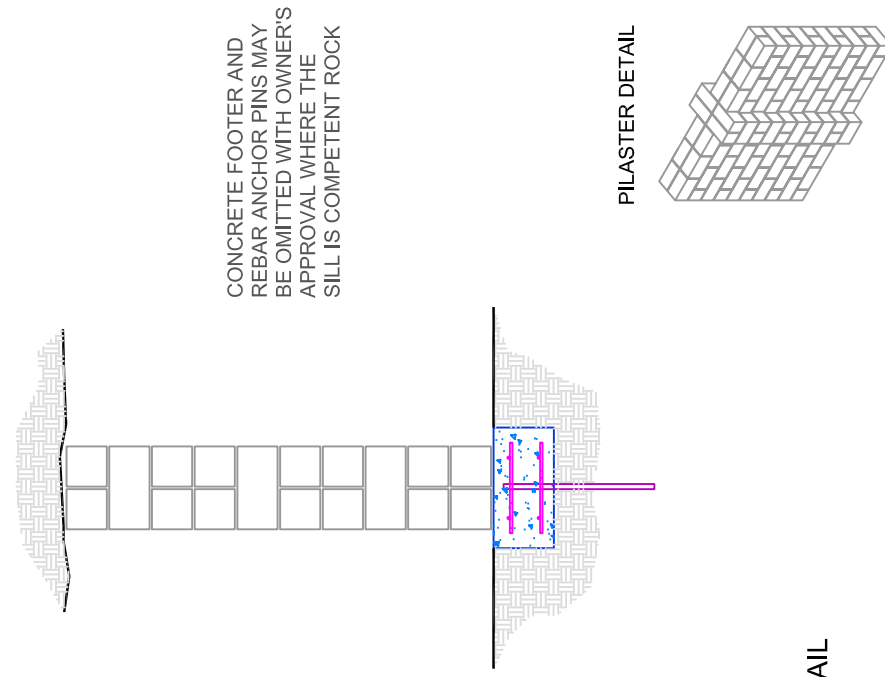
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TYPICAL ELEVATION

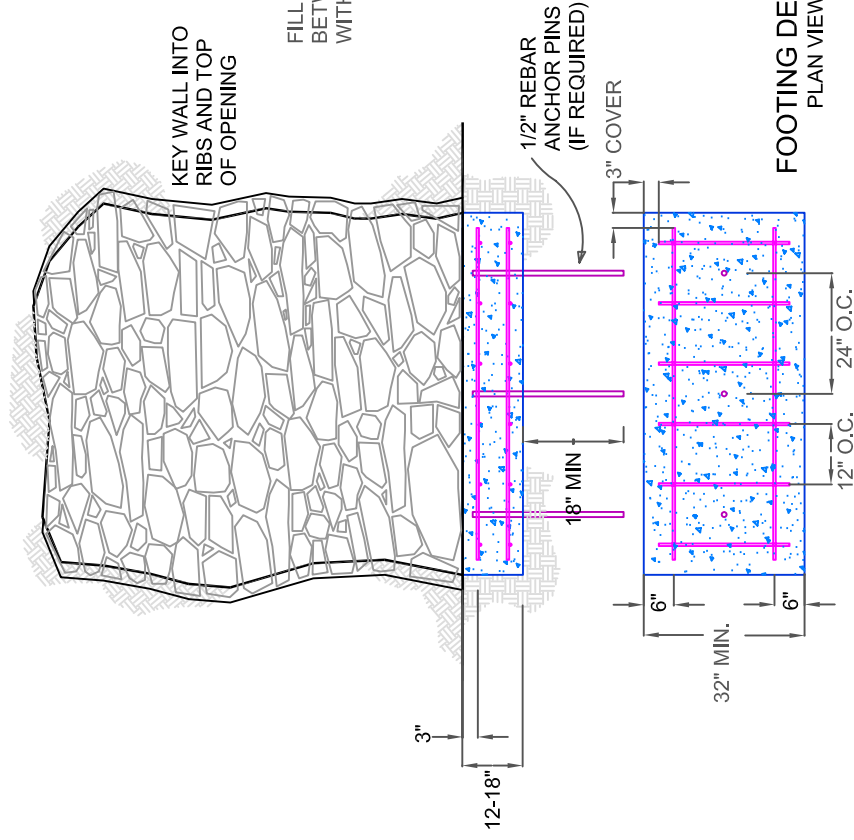


TYPICAL SECTION

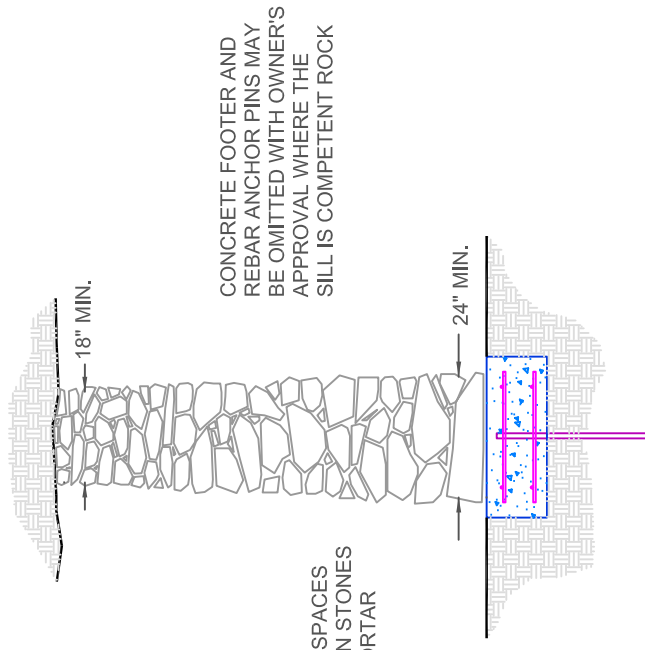


 <p>UTAH NATURAL RESOURCES Oil, Gas and Mining Abandoned Mine Reclamation Program</p>	<p align="center">MINE RECLAMATION PROJECT</p>	<p align="center">BLOCK WALL CLOSURE</p>
	<p align="center">Scale: as noted</p>	<p align="center">Design: LAA Drafting: JCR</p>
	<p align="center">Refer to Spec Section 0200's</p>	<p align="center">Sheet E3 of E19</p>

TYPICAL ELEVATION



TYPICAL SECTION



CONCRETE FOOTER AND REBAR ANCHOR PINS MAY BE OMITTED WITH OWNER'S APPROVAL WHERE THE SILL IS COMPETENT ROCK



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**MINE RECLAMATION
PROJECT**

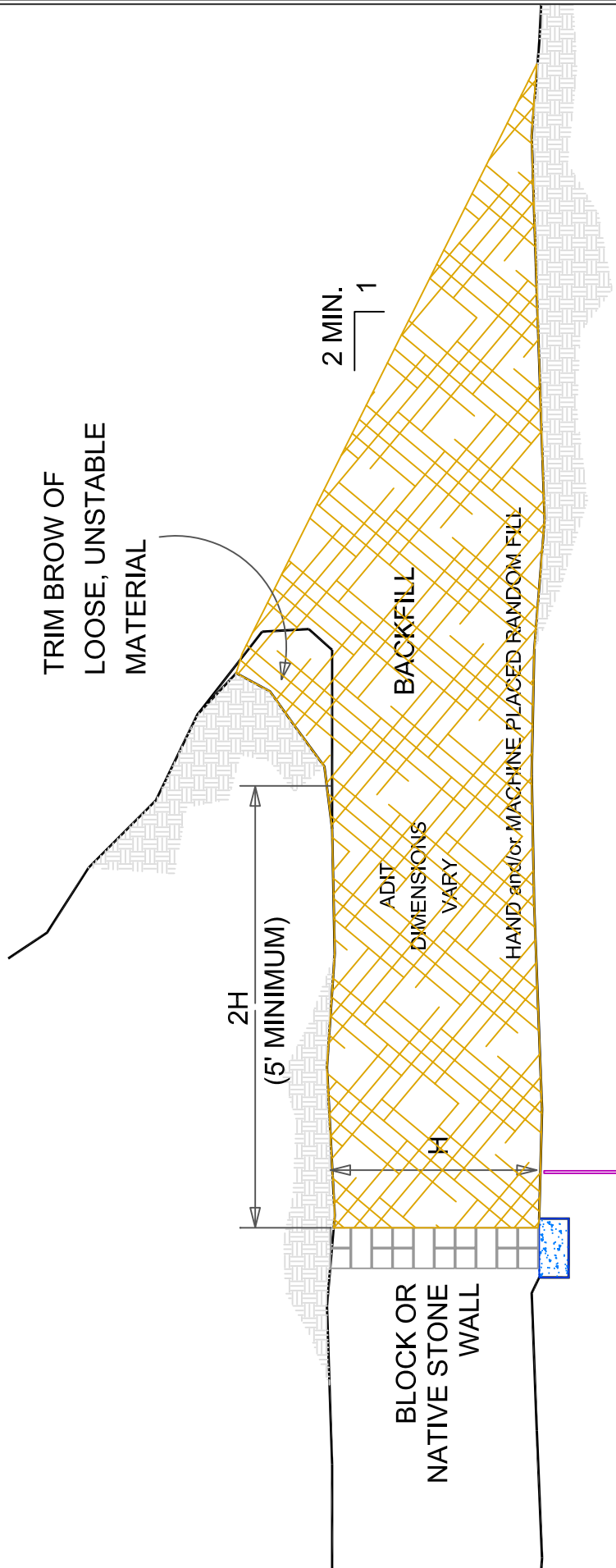
NATIVE STONE WALL CLOSURE


Scale: as noted

Design: LAA Drafting: JCR

Refer to Spec Section 0200's

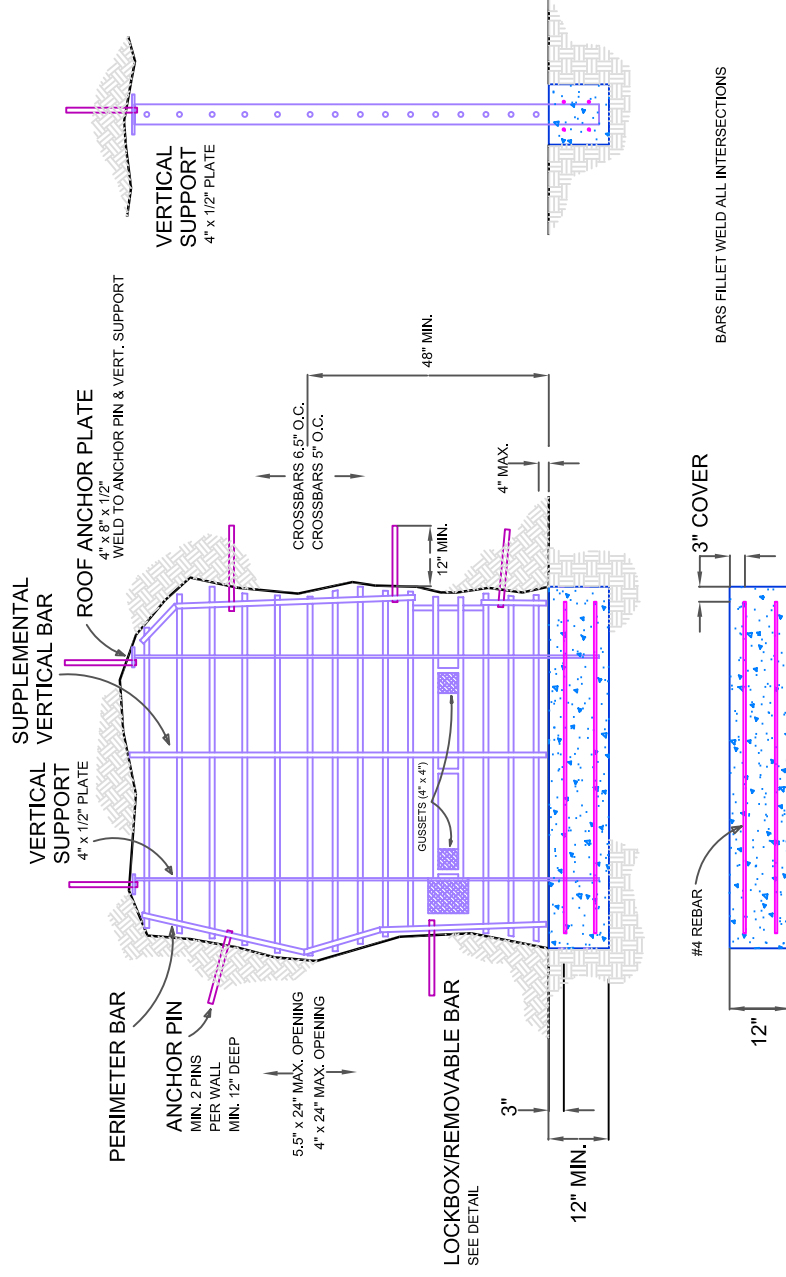
Sheet E4 of E19



 <p>UTAH NATURAL RESOURCES Oil, Gas and Mining Abandoned Mine Reclamation Program</p>	MINE RECLAMATION PROJECT		WALL AND BACKFILL CLOSURE	
	Scale: as noted		Design: LAA Drafting: JCR	
	Refer to Spec Section 0200's		Sheet E5 of E19	


TYPICAL ELEVATION

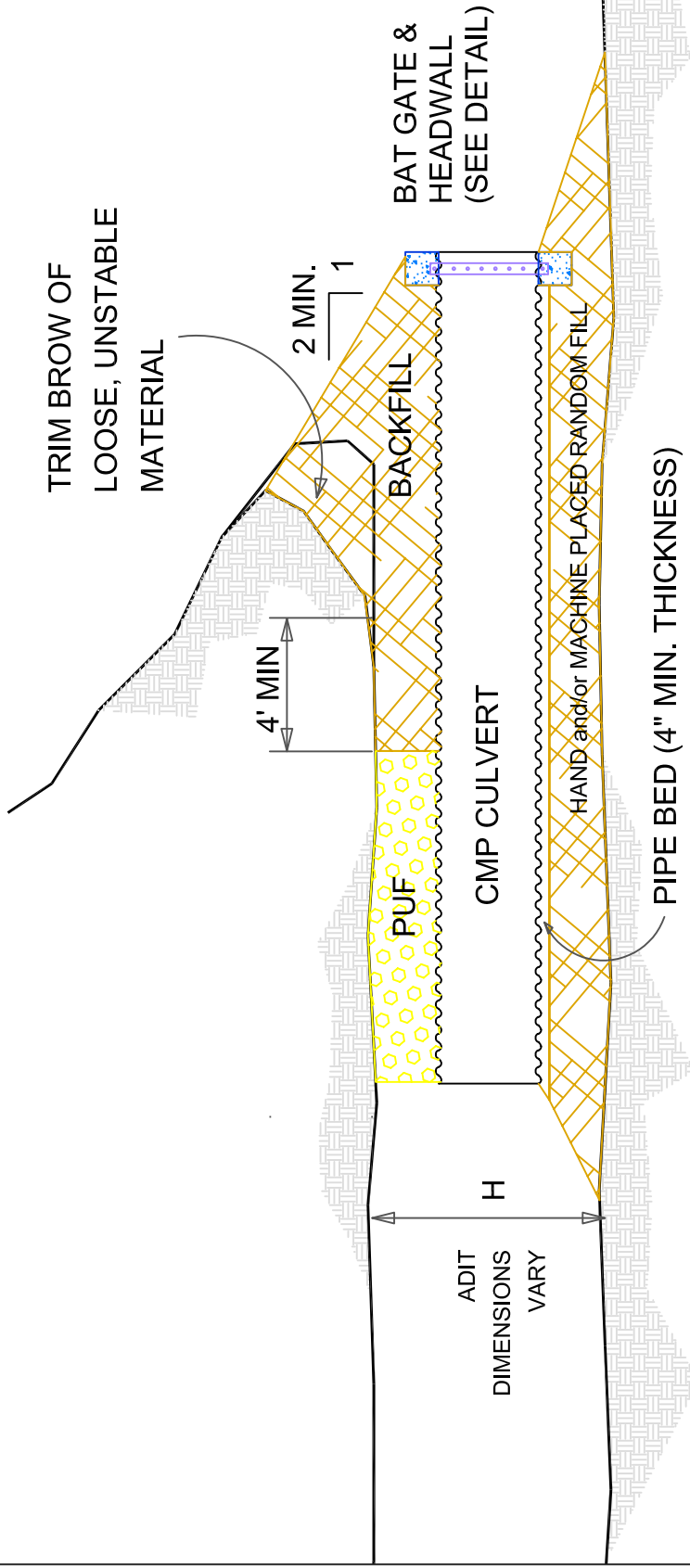
TYPICAL SECTION



FOOTING DETAIL
PLAN VIEW

NOTE: ALL GATE STEEL TO BE 12-14% MANGANESE STEEL (MANGANAL OR EQUIV.)

 <p>UTAH NATURAL RESOURCES Oil, Gas and Mining Abandoned Mine Reclamation Program</p>	BAT GATE CLOSURE	
	Scale: as noted	Design: LAA Drafting: JCR
	Refer to Spec Section 0200's	Sheet E6 of E19



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Abandoned Mine Reclamation Program

**MINE RECLAMATION
PROJECT**

CMP BAT GATE CLOSURE

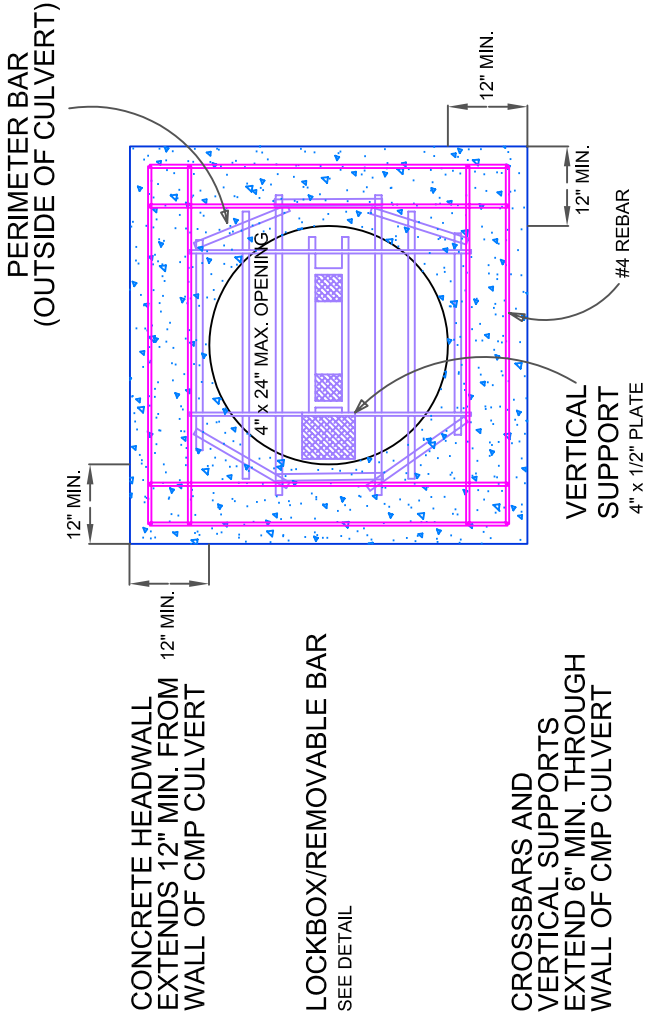
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Design: LAA Drafting: JCR

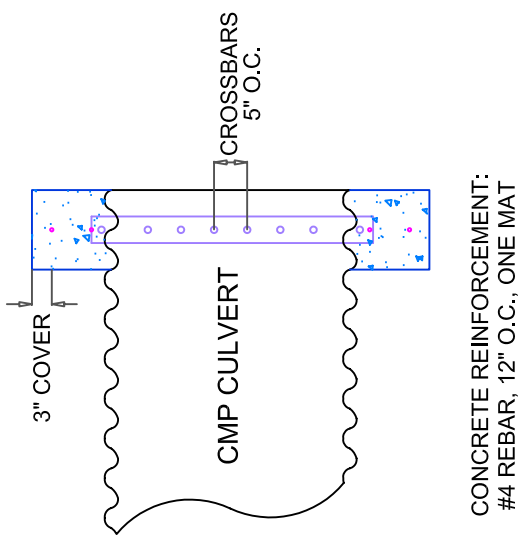
Refer to Spec Section 0200's

Sheet E10 of E19


TYPICAL ELEVATION



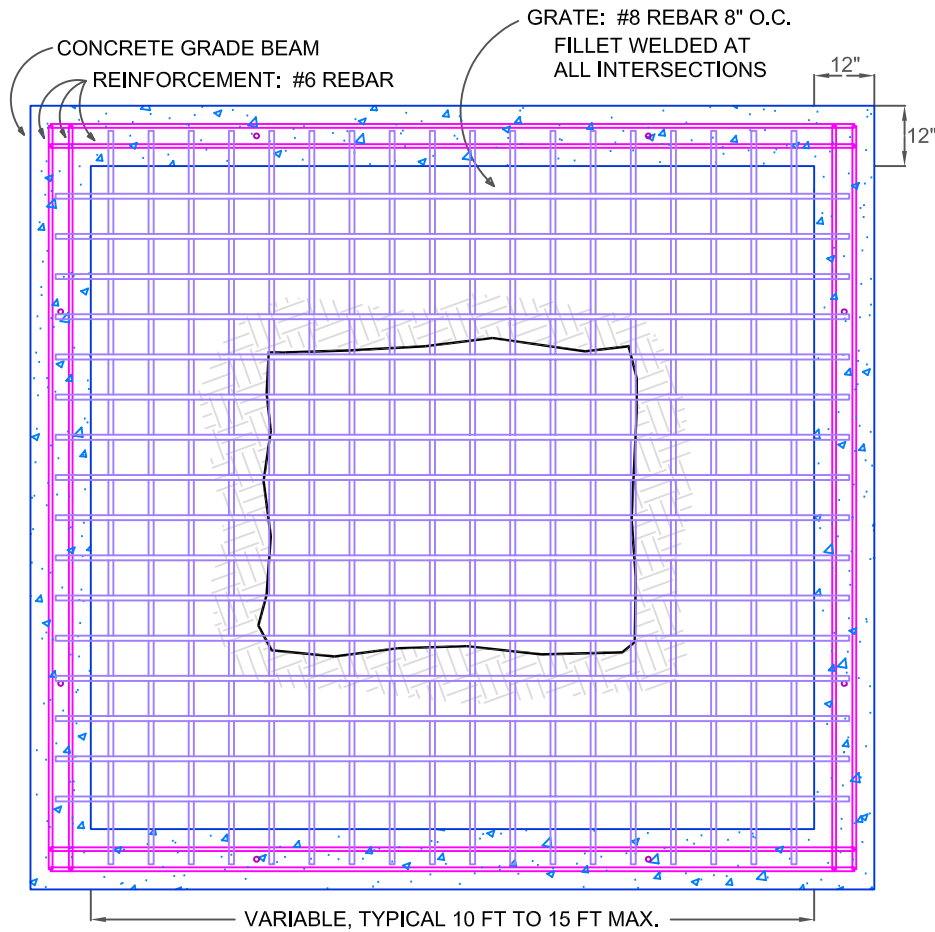
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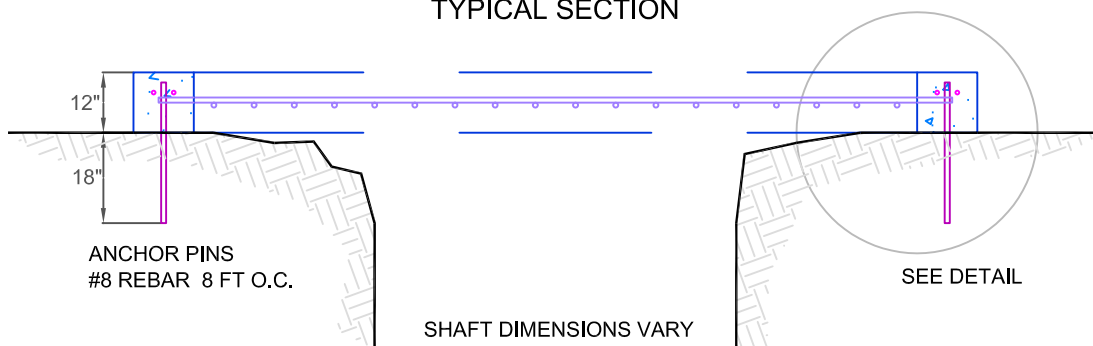
NOTE: ALL GATE STEEL TO BE 12-14% MANGANESE STEEL (MANGANAL OR EQUIV.)

 Utah Oil Gas and Mining	MINE RECLAMATION PROJECT		CMP BAT GATE CLOSURE DETAILS	
	Scale: as noted		Design: LAA Drafting: JCR	
	Refer to Spec Section 0200's		Sheet E11 of E19	

TYPICAL PLAN



TYPICAL SECTION



REBAR SHAFT GRATE CLOSURE

Design: LAA Drafting: JCR

Scale: as noted

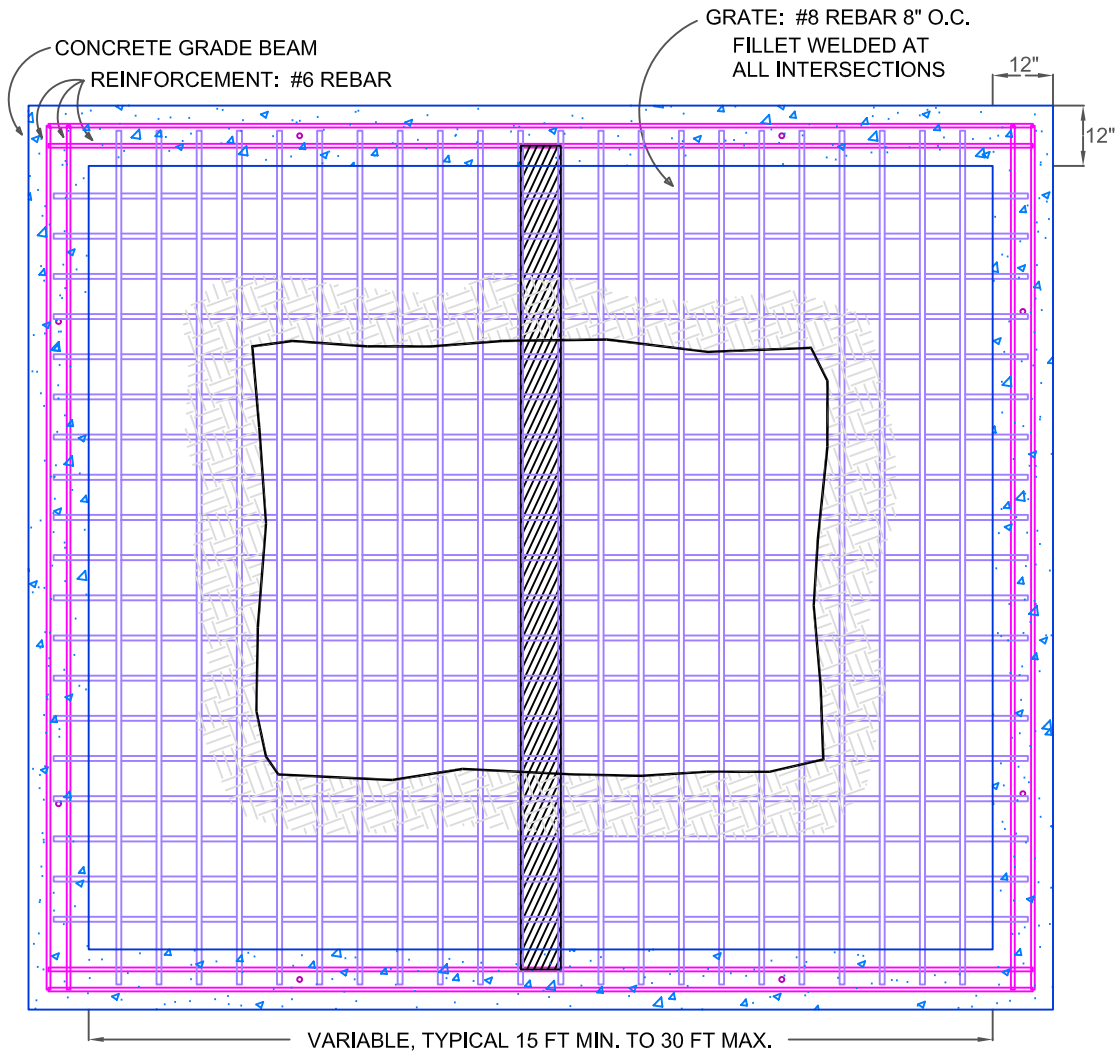
Refer to Spec Section 0200's

MINE RECLAMATION PROJECT

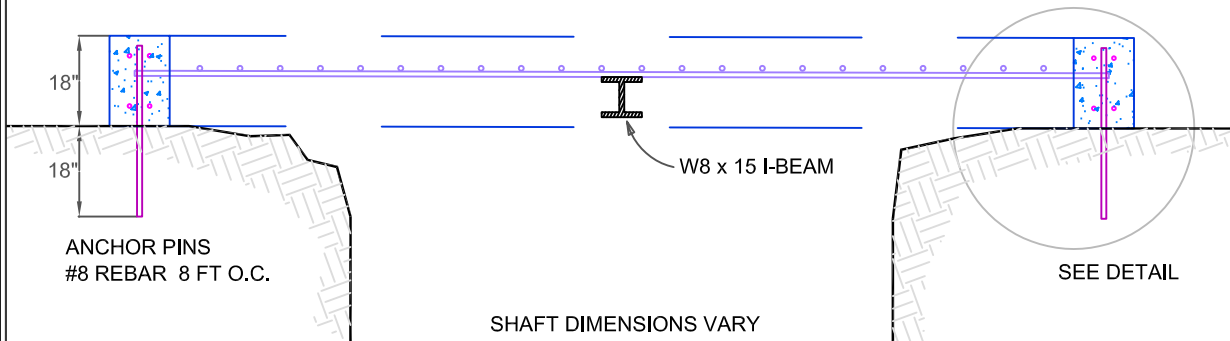
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TYPICAL PLAN



TYPICAL SECTION



REBAR SHAFT GRATE (WITH I-BEAM)

Scale: as noted

Design: LAA Drafting: JCR

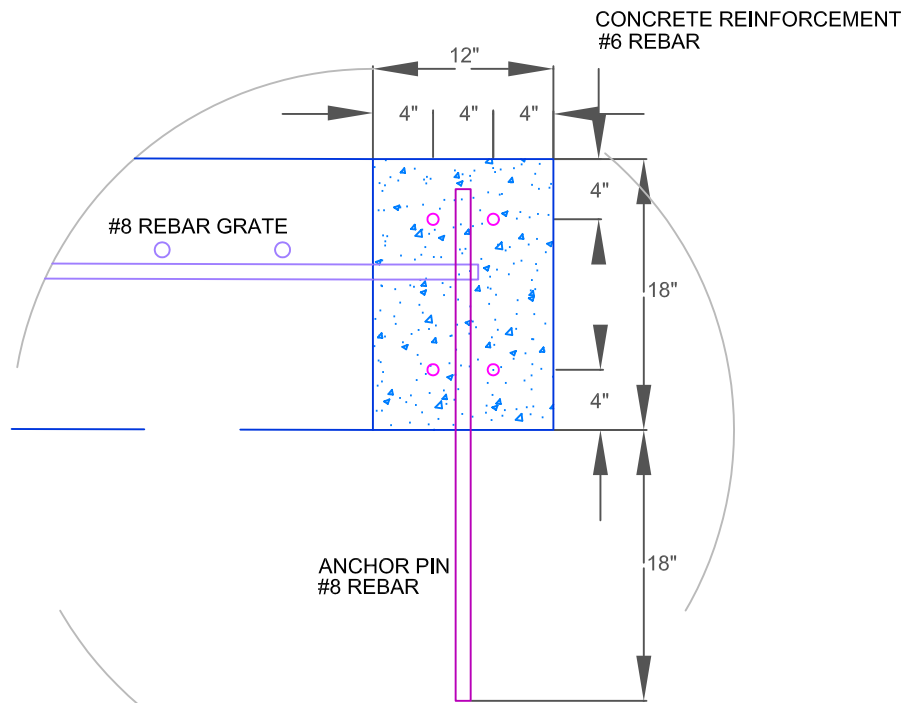
Refer to Spec Section 0200's

Sheet E15 of E19

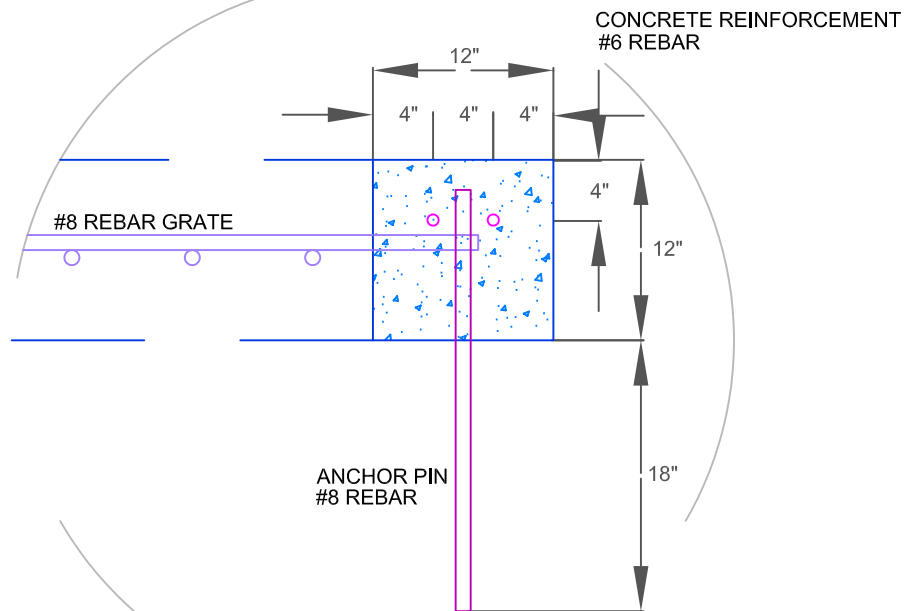
MINE RECLAMATION PROJECT

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CROSS-SECTION
12" x 18" GRADE BEAM



CROSS-SECTION
12" x 12" GRADE BEAM

REBAR SHAFT GRATE GRADE BEAM DETAILS

Design: LAA Drafting: JCR

Scale: as noted

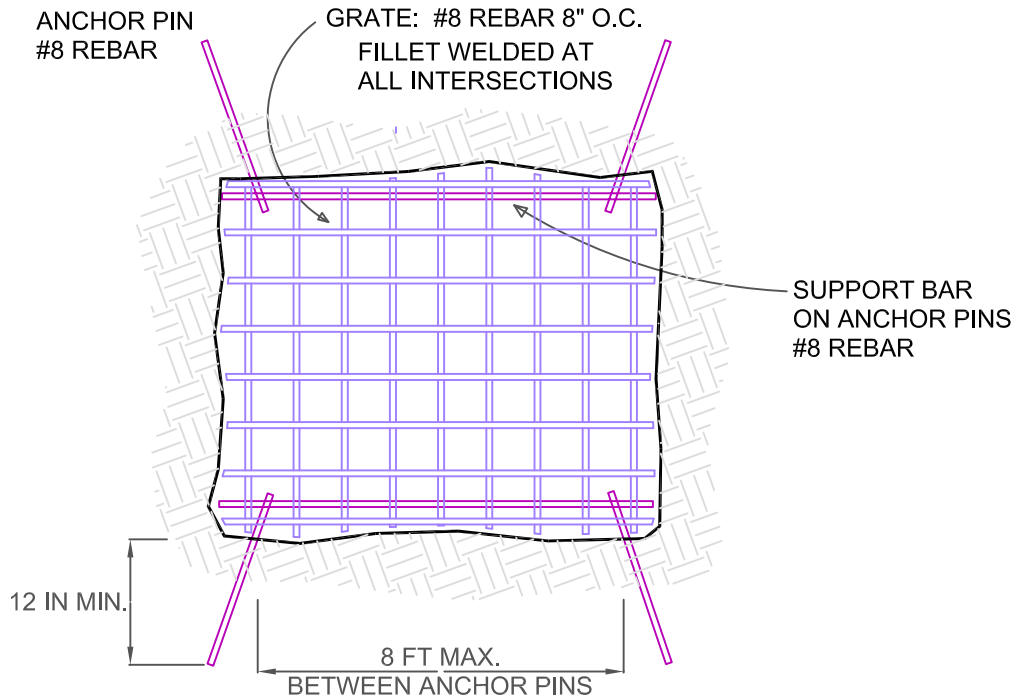
Refer to Spec Section 0200's

MINE RECLAMATION
PROJECT

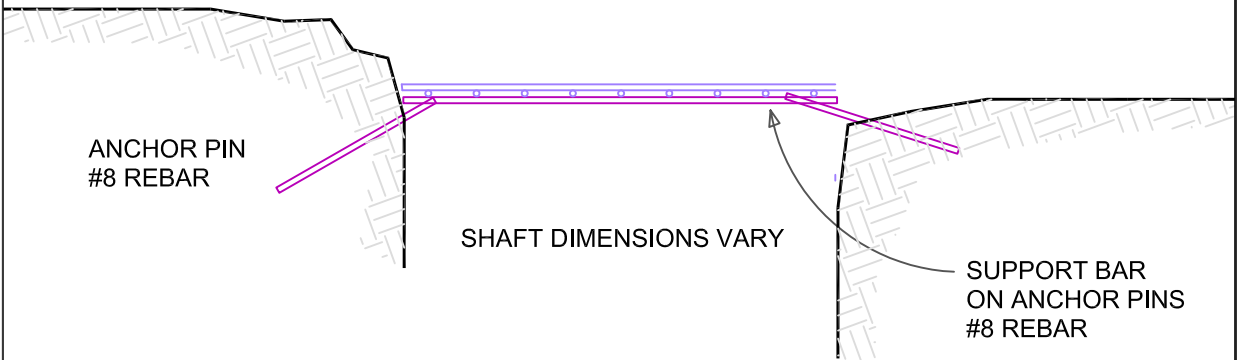
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TYPICAL PLAN



TYPICAL SECTION



REBAR SHAFT GRATE (PINNED)

Design: LAA Drafting: JCR

Scale: as noted

Sheet E17 of E19

MINE RECLAMATION
PROJECT

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Appendix F: Project Location and Site Maps

See Part 1.04 (Project Organization and Mapping) in Section 0300: Specific Site Requirements for a description of the map layout and organization used for this project.

See Part 1.03.C in Section 0300: Specific Site Requirements of the construction specifications for a description of the site identification system used to label the mine sites on the maps.

Locations of symbols for shafts, adits, and other features may be off by as much as 50-100 feet (0.1 inch at map scale) due interference by terrain with the GPS surveys and as an artifact of how the mapping software plots the symbols.

Map No.	Scale		Description
Map 1	1:317k	1 in = 5 miles	Project Location & Key Roads
Map 2	1:158k	1 in = 2.5 miles	Index to Subareas
S1	1:48k	1 in = 4000 ft	Subarea Map: Copper Springs
S2	1:48k	1 in = 4000 ft	Subarea Map: East Government/North Oak Brush/Harker
S3	1:48k	1 in = 4000 ft	Subarea Map: Bennion
S4	1:48k	1 in = 4000 ft	Subarea Map: Vernon Creek/Little Valley
S5	1:48k	1 in = 4000 ft	Subarea Map: Joes/Hard to Beat
S6	1:48k	1 in = 4000 ft	Subarea Map: South Pine/South Oak Brush
D1	1:12k	1 in = 1000 ft	Detail Map: North Oak Brush
D2	1:12k	1 in = 1000 ft	Detail Map: Harker Canyon
D3	1:12k	1 in = 1000 ft	Detail Map: Bennion
D4	1:12k	1 in = 1000 ft	Detail Map: Little Valley North
D5	1:12k	1 in = 1000 ft	Detail Map: Little Valley South
D6	1:12k	1 in = 1000 ft	Detail Map: Joes Canyon
D7	1:12k	1 in = 1000 ft	Detail Map: Sheeprock
D8	1:12k	1 in = 1000 ft	Detail Map: Hard to Beat South
D9	1:12k	1 in = 1000 ft	Detail Map: Hard to Beat North
D10	1:12k	1 in = 1000 ft	Detail Map: Cottonwood
D11	1:12k	1 in = 1000 ft	Detail Map: South Pine
D12	1:12k	1 in = 1000 ft	Detail Map: South Oak Brush
Plate 1	1:100k	1 in = 1.6 miles	Project Area Overview Oversize Plate (11" x 17"), bound
Plate 2	1:24k	1 in = 2000 ft	Project Area Overview Oversize Plate (24" x 36"), not bound

Appendix F: Project Location and Site Maps

Page 2

This table shows the nested relationship between the subarea and detail maps:

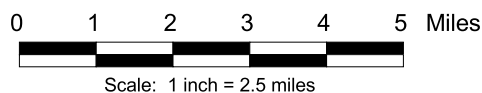
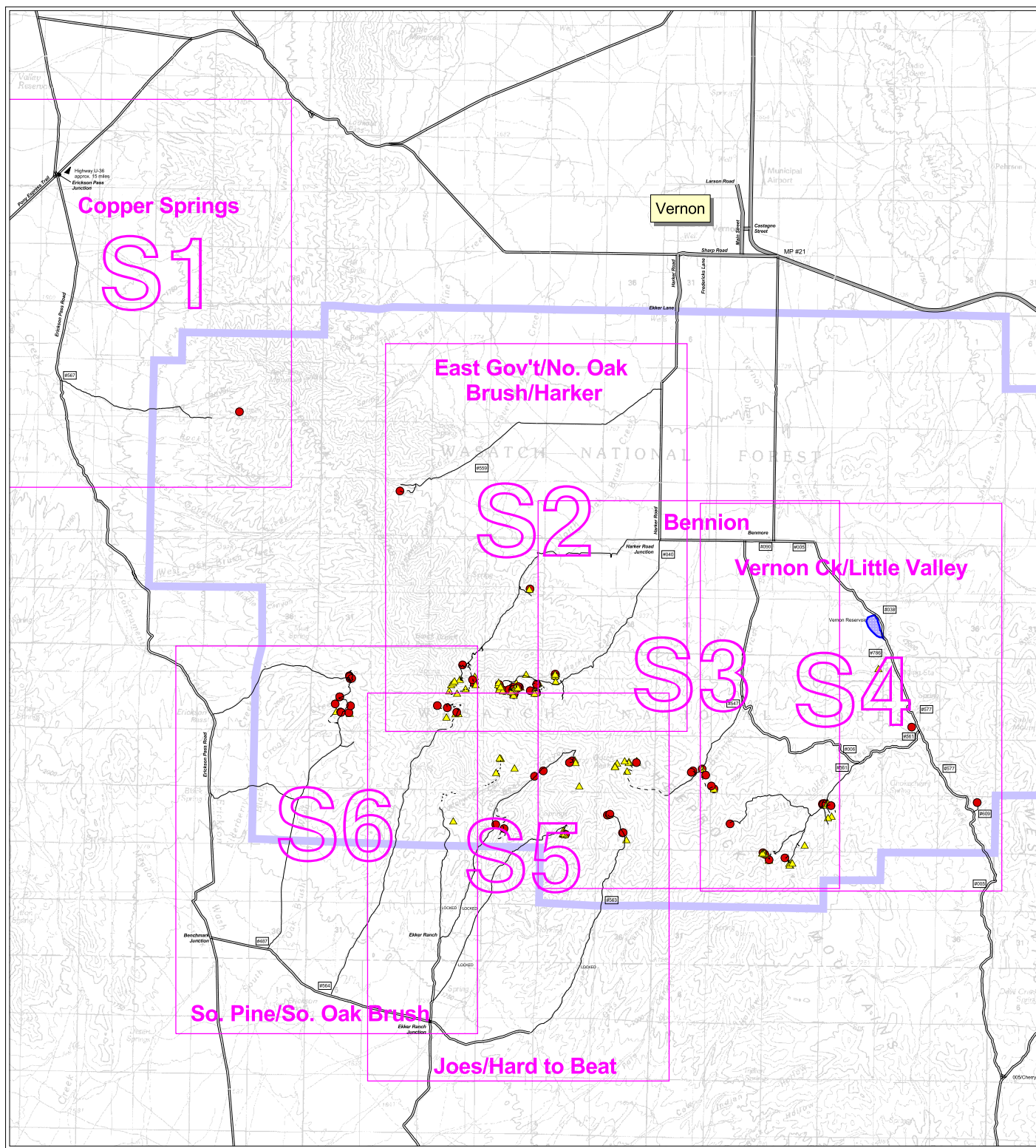
Subarea Maps		Detail Maps	
Map Scale: 1:48,000 or 1 inch = 4000 feet		Map Scale: 1:12,000 or 1 inch = 1000 feet	
Map Layout: 8½" x 11", portrait orientation		Map Layout: 8½" x 11", landscape orientation	
Subarea Number	Subarea Name	Detail Number	Detail Name
S1	Copper Springs	None	None
S2	East Gov't/No. Oak Brush/Harker	D1	North Oak Brush
		D2	Harker Canyon
S3	Bennion	D3	Bennion
S4	Vernon Ck/Little Valley	D4	Little Valley North
		D5	Little Valley South
S5	Joes/Hard to Beat	D6	Joes Canyon
		D7	Sheeprock
		D8	Hard to Beat South
		D9	Hard to Beat North
		D10	Cottonwood
S6	So. Pine/So. Oak Brush	D11	South Pine
		D12	South Oak Brush

Map Legends:



Maps 1 and 2 use red circles for open features (HO, IO, VO) and yellow triangles for closed features and prospects (HC, VC, PR, TR, SH).

The mine closure color-coding for the subarea and detail maps is the same as that in the legend on the 1:24,000 scale project overview map (Plate 1).

Symbol Color	Work
Dark Blue	Backfill (Hand)
Light Blue	Backfill (Equipment)
Dark Red	Bat Gate
Light Red	Rebar Grate
Gold	Wall (Stone/Block)
Light Blue (large disk)	Site Grading/Earthwork
Yellow Triangle	None/Not Applicable



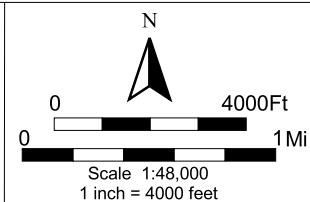
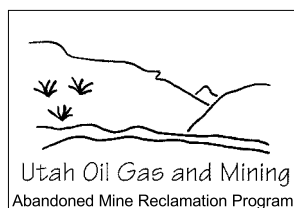
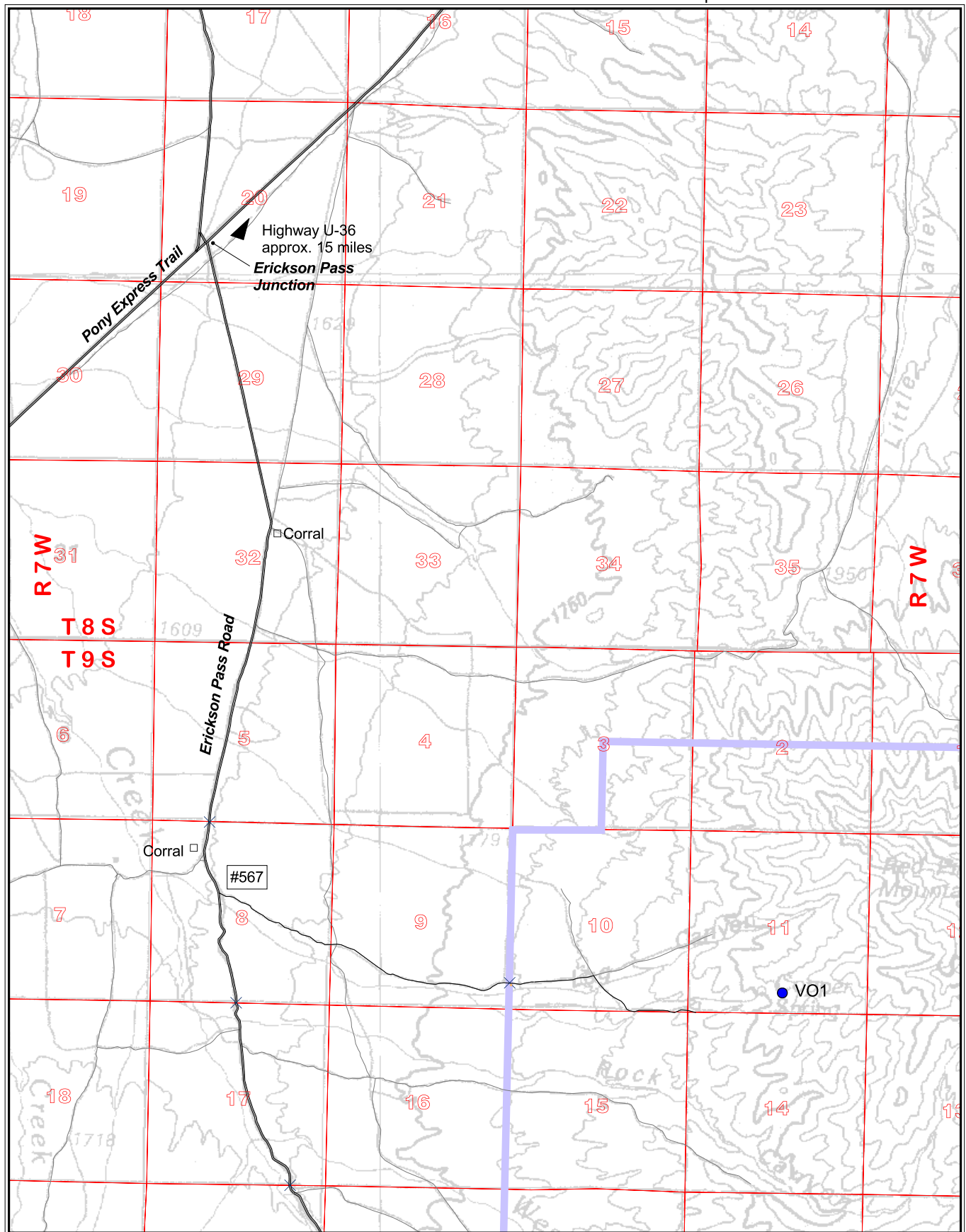
- Subarea Maps & Detail Maps
- S1: Copper Springs
No Detail Maps
 - S2: East Gov't/No. Oak Brush/Harker
D1: North Oak Brush
D2: Harker Canyon
 - S3: Bennion
D3: Bennion
 - S4: Vernon Ck/Little Valley
D4: Little Valley North
D5: Little Valley South
 - S5: Joes/Hard to Beat
D6: Joes Canyon
D7: Sheepsrock
D8: Hard to Beat South
D9: Hard to Beat North
D10: Cottonwood
 - S6: South Pine/South Oak Brush
D11: South Pine
D12: South Oak Brush

 Project Boundary
 Subarea Boundary

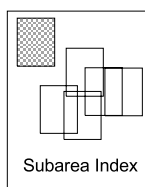
See the Subarea Maps for the locations and boundaries of the Detail Maps.

Vernon Sheepsrocks Project

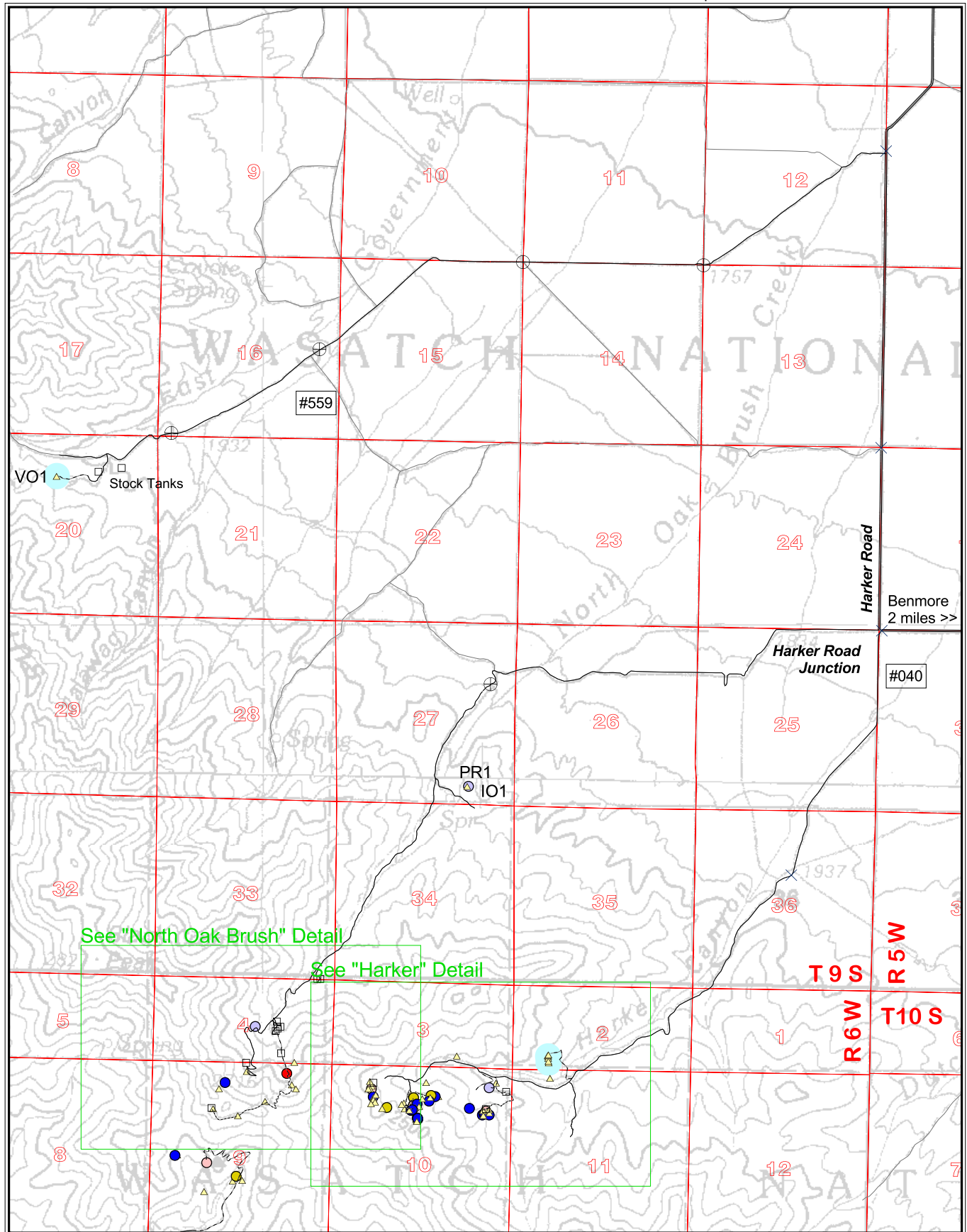
Index to Subareas



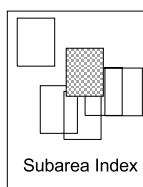
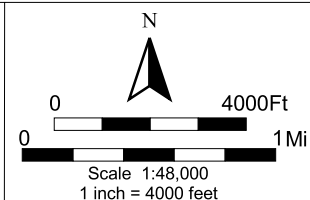
Drawn By: JCR/DOGM Plotted: April 22, 2005



Vernon Sheeprocks Project
AMR/045/910
Subarea Map
Copper Springs
Subarea Map S1 of S6



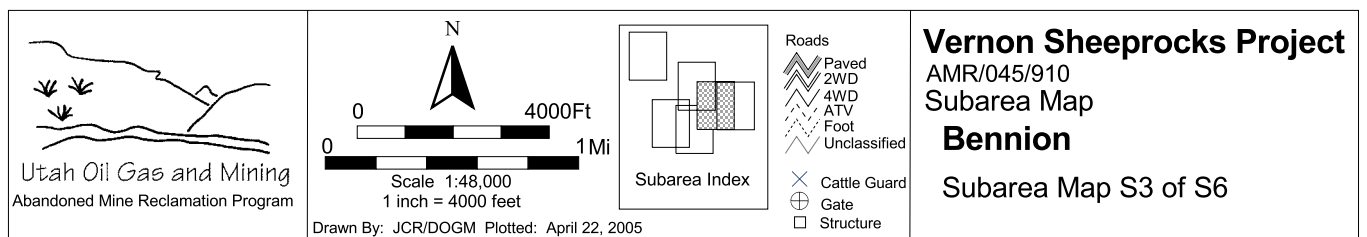
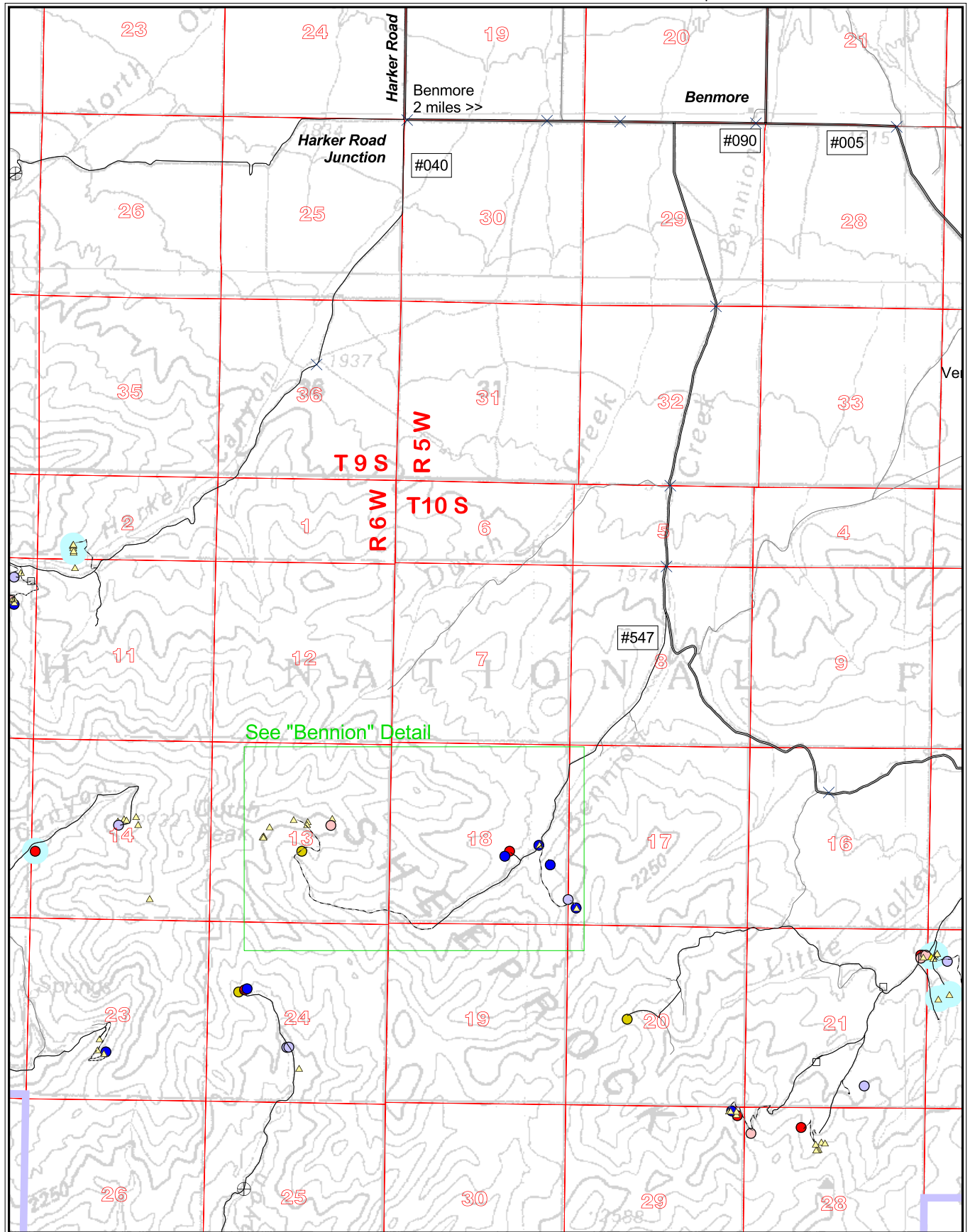
Utah Oil Gas and Mining
Abandoned Mine Reclamation Program

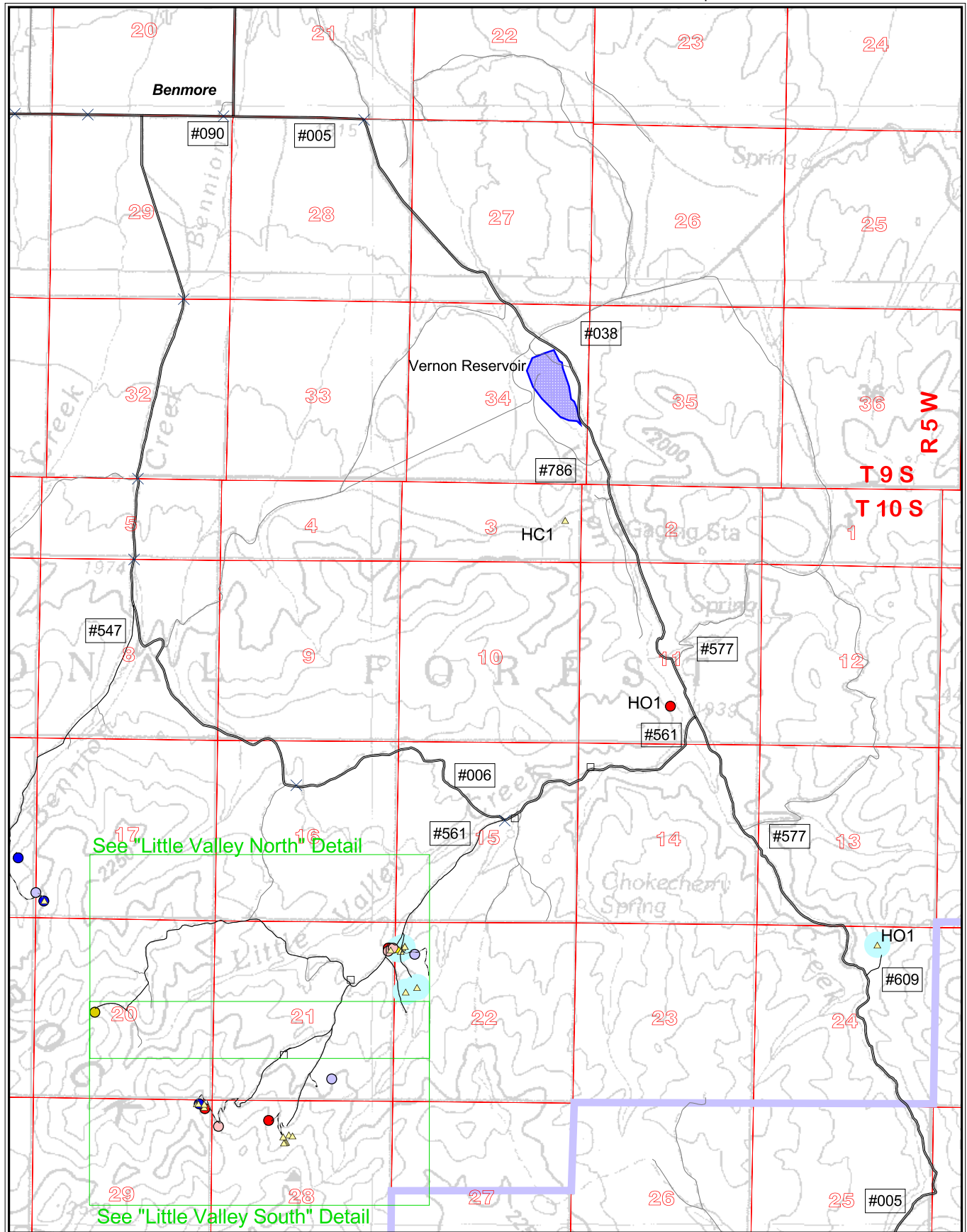


Roads
Paved
2WD
4WD
ATV
Foot
Unclassified

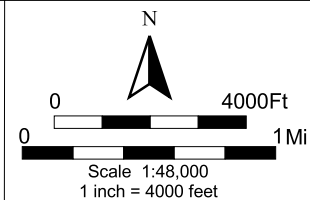
Cattle Guard
Gate
Structure

Vernon Sheeprocks Project
AMR/045/910
Subarea Map
**East Gov't/No. Oak
Brush/Harker**
Subarea Map S2 of S6





Utah Oil Gas and Mining
Abandoned Mine Reclamation Program



Drawn By: JCR/DOGM Plotted: April 22, 2005

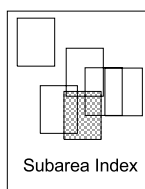
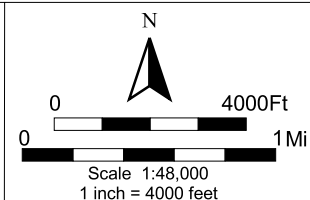
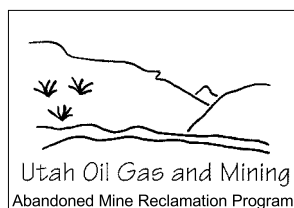
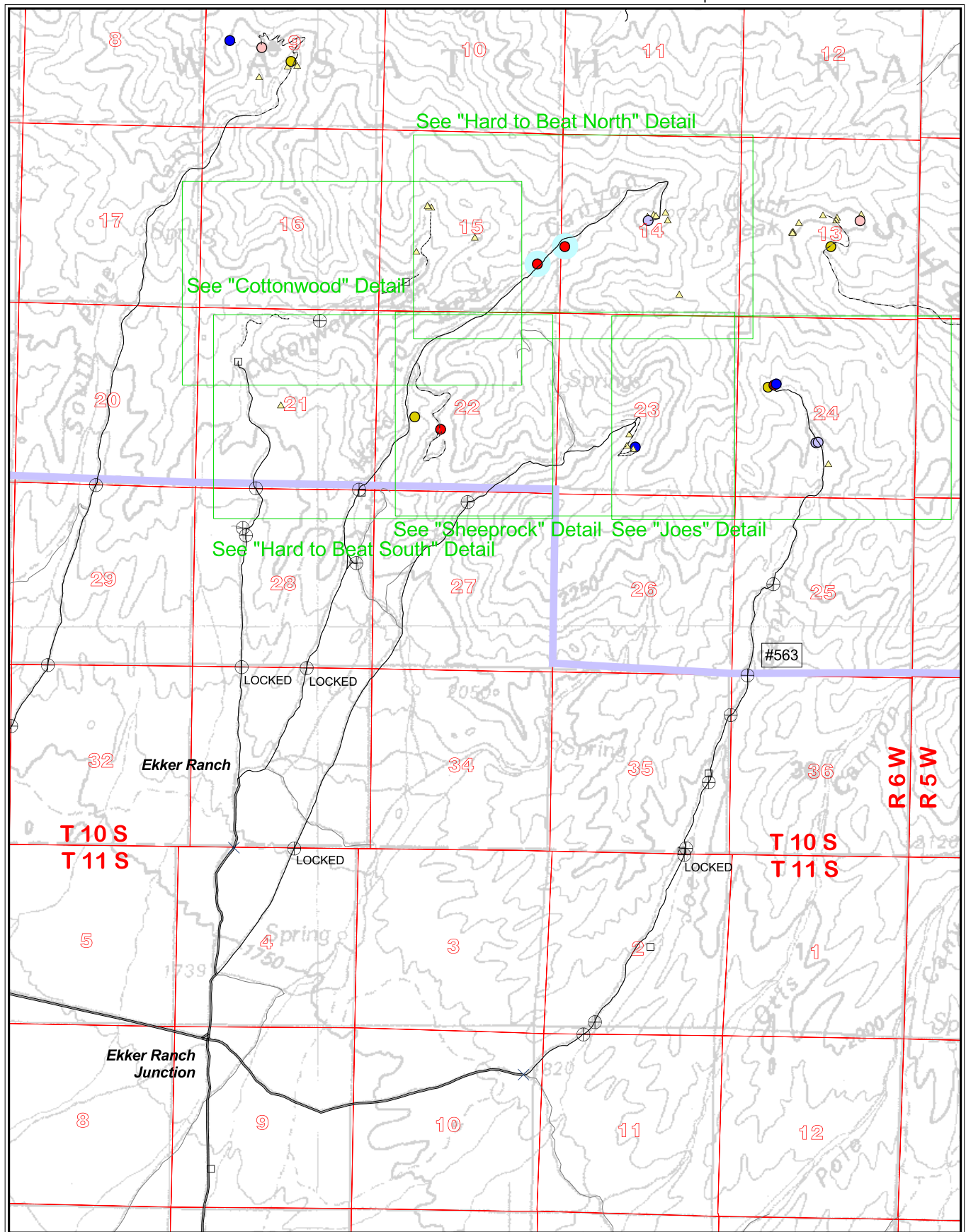
Roads

- Paved
- 2WD
- 4WD
- ATV
- Foot
- Unclassified

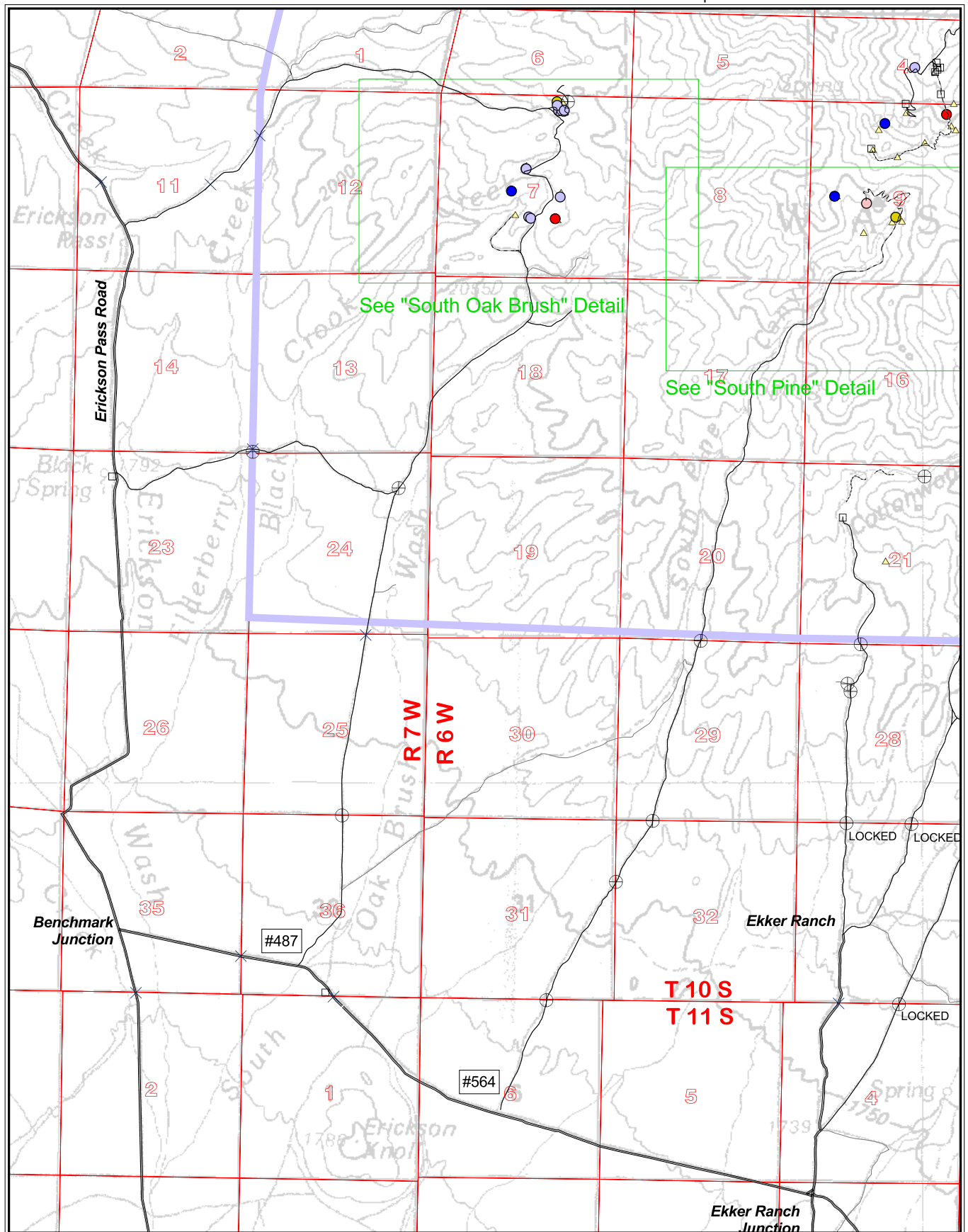
Other Features

- Cattle Guard
- Gate
- Structure

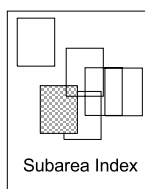
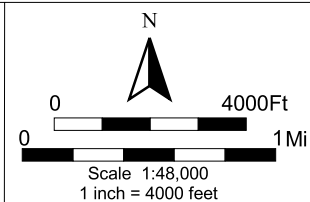
Vernon Sheeprocks Project
AMR/045/910
Subarea Map
Vernon Ck/Little Valley
Subarea Map S4 of S6



Vernon Sheeprocks Project
AMR/045/910
Subarea Map
Joes/Hard to Beat
Subarea Map S5 of S6



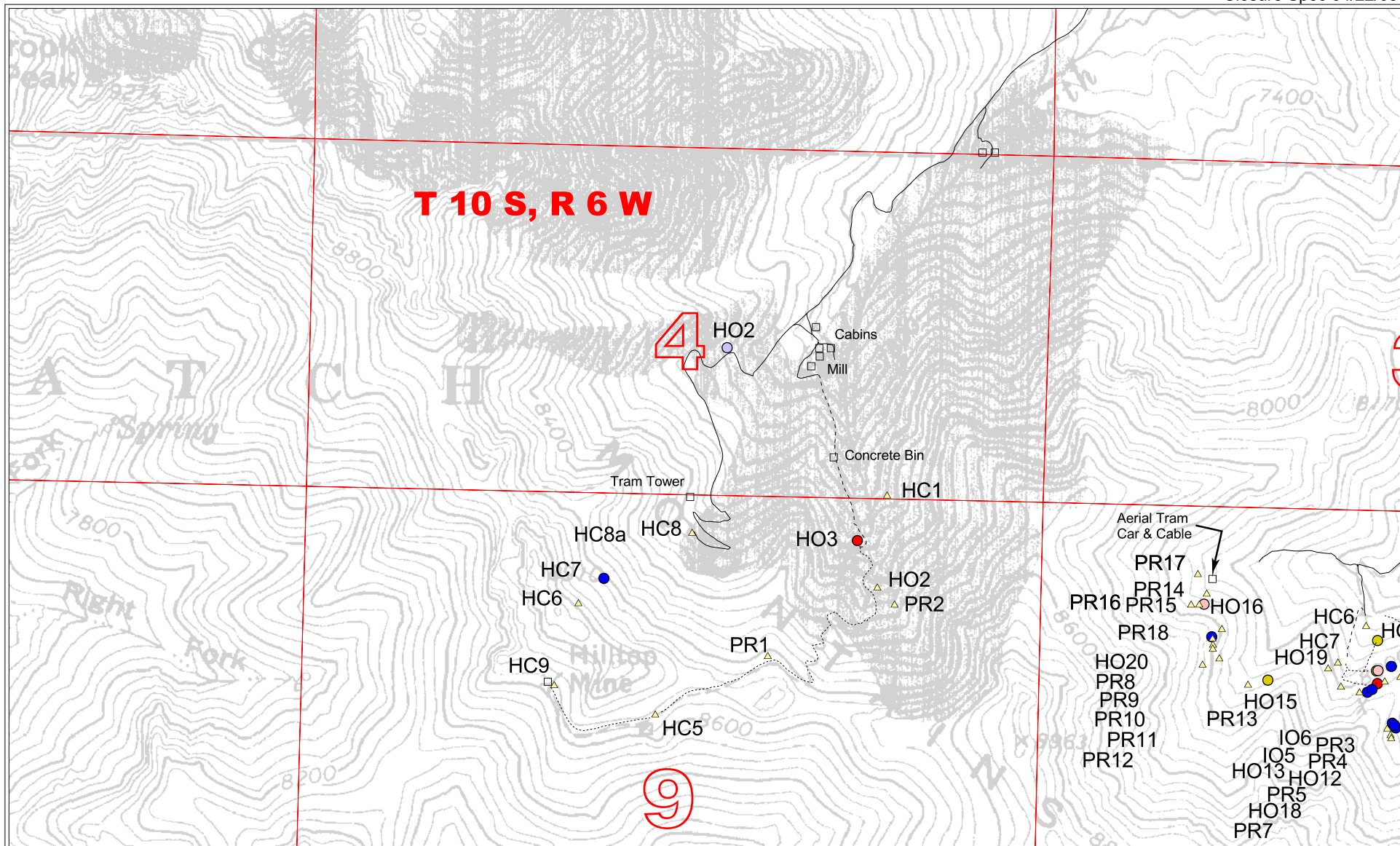
Utah Oil Gas and Mining
Abandoned Mine Reclamation Program

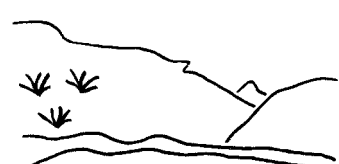




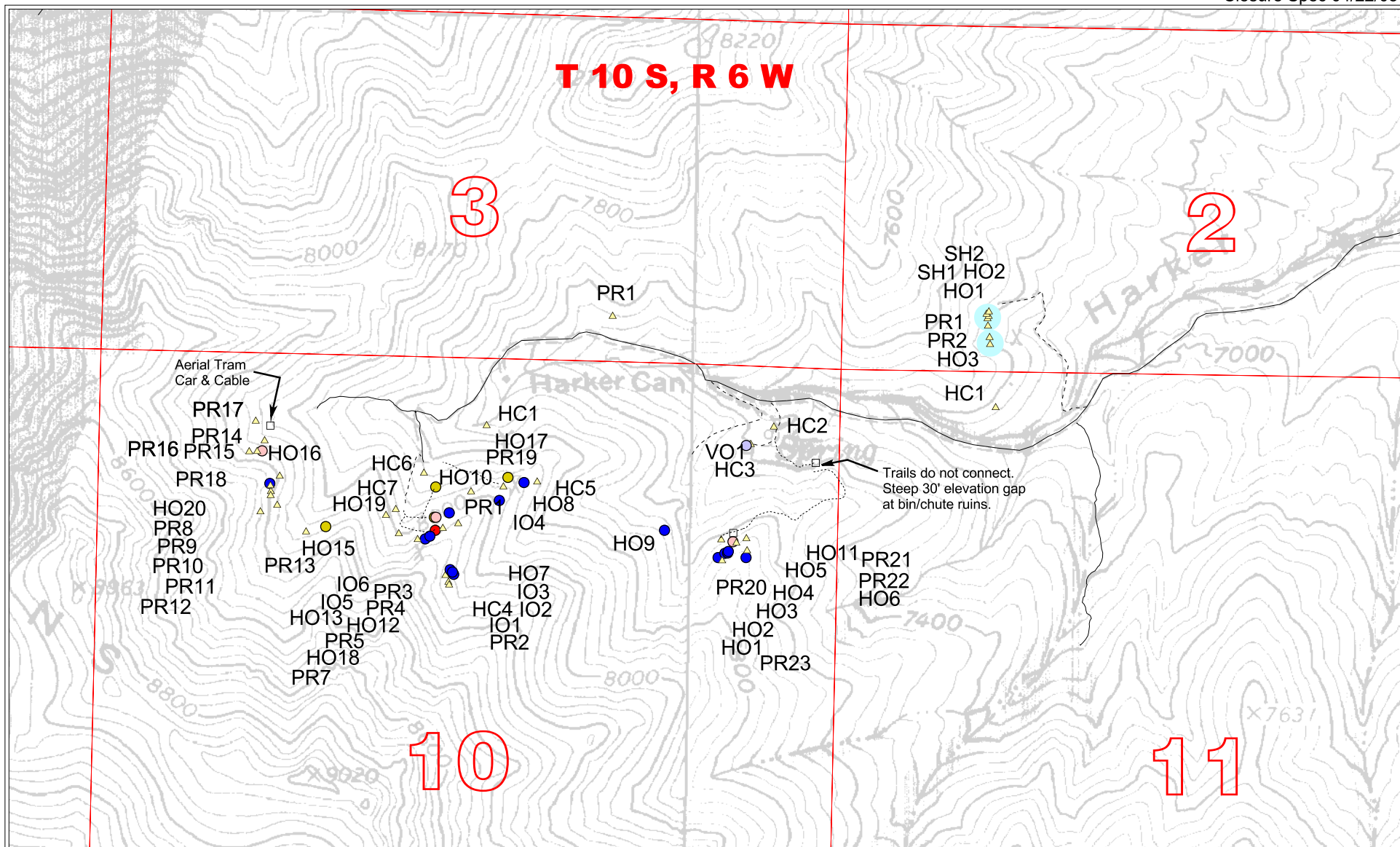
Roads
Paved
2WD
4WD
ATV
Foot
Unclassified

Cattle Guard
Gate
Structure

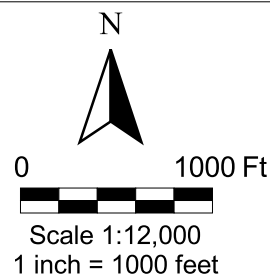
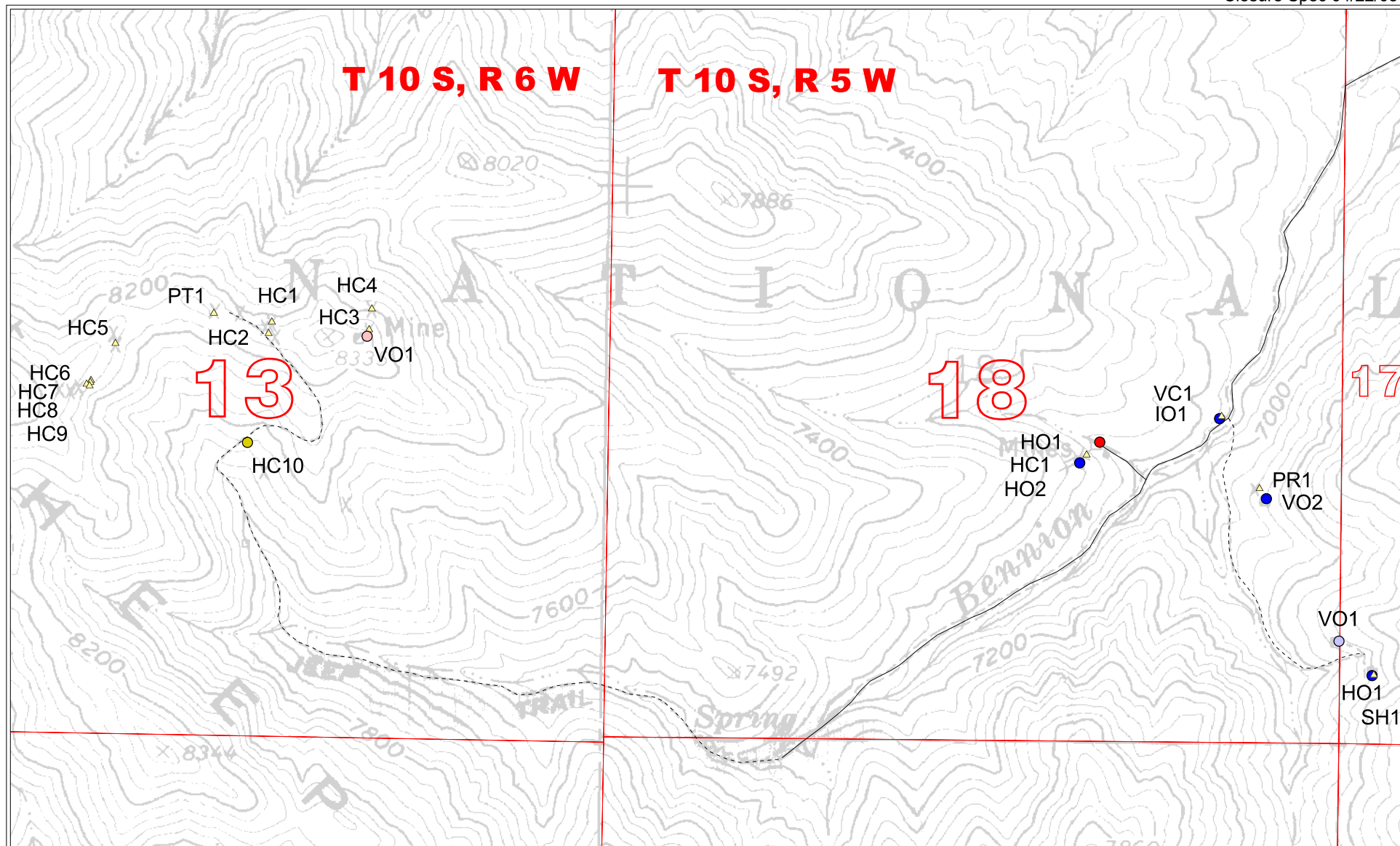
Vernon Sheeprocks Project
AMR/045/910
Subarea Map
So. Pine/So. Oak Brush
Subarea Map S6 of S6



 <p>Utah Oil Gas and Mining Abandoned Mine Reclamation Program</p>	<p>N</p>  <p>0 1000 Ft</p>  <p>Scale 1:12,000 1 inch = 1000 feet</p>	<p>Roads</p> <ul style="list-style-type: none"> Paved 2WD 4WD ATV Foot Cattle Guard Gate Structure <p>Specified Closure</p> <ul style="list-style-type: none"> BACKFILL (Hand) BACKFILL (Equip) BAT GATE REBAR GRATE WALL (Block/Stone) None/NA Earthwork <p>Drawn By: JCR/DOGM Plotted: April 22, 2005</p>	<h2>Vernon Sheeprocks Project</h2> <p>AMR/045/910</p> <h3>North Oak Brush</h3> <p>Detail Map D1 of D12 Refer to Subarea Map S2 of S6: East Gov't/No. Oak Brush/Harker</p> <p>Detail Map</p>
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<p>Utah Oil Gas and Mining Abandoned Mine Reclamation Program</p>	<p>N</p> <p>0 1000 Ft</p> <p>Scale 1:12,000 1 inch = 1000 feet</p>	<p>Roads</p> <ul style="list-style-type: none"> Paved 2WD 4WD ATV Foot Cattle Guard Gate Structure <p>Specified Closure</p> <ul style="list-style-type: none"> BACKFILL (Hand) BACKFILL (Equip) BAT GATE REBAR GRATE WALL (Block/Stone) None/NA Earthwork <p>Drawn By: JCR/DOGM Plotted: April 22, 2005</p>	<h2>Vernon Sheeprocks Project</h2> <p>AMR/045/910</p> <p>Harker Canyon</p> <p>Detail Map D2 of D12 Refer to Subarea Map S2 of S6: East Gov't/No. Oak Brush/Harker</p> <p>Detail Map</p>
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Roads		Specified Closure	
	Paved		BACKFILL (Hand)
	2WD		BACKFILL (Equip)
	4WD		BAT GATE
	ATV		REBAR GRATE
	Foot		WALL (Block/Stone)
	Cattle Guard		None/NA
	Gate		Earthwork
	Structure		

Drawn By: JCR/DOGM Plotted: April 22, 2005

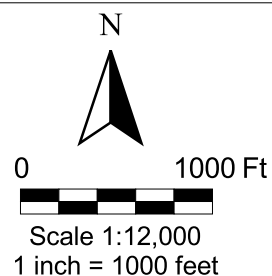
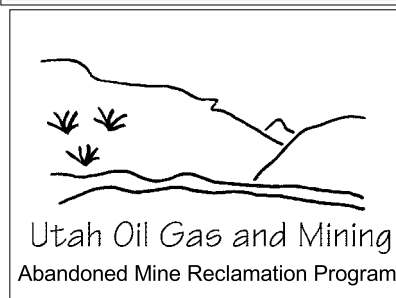
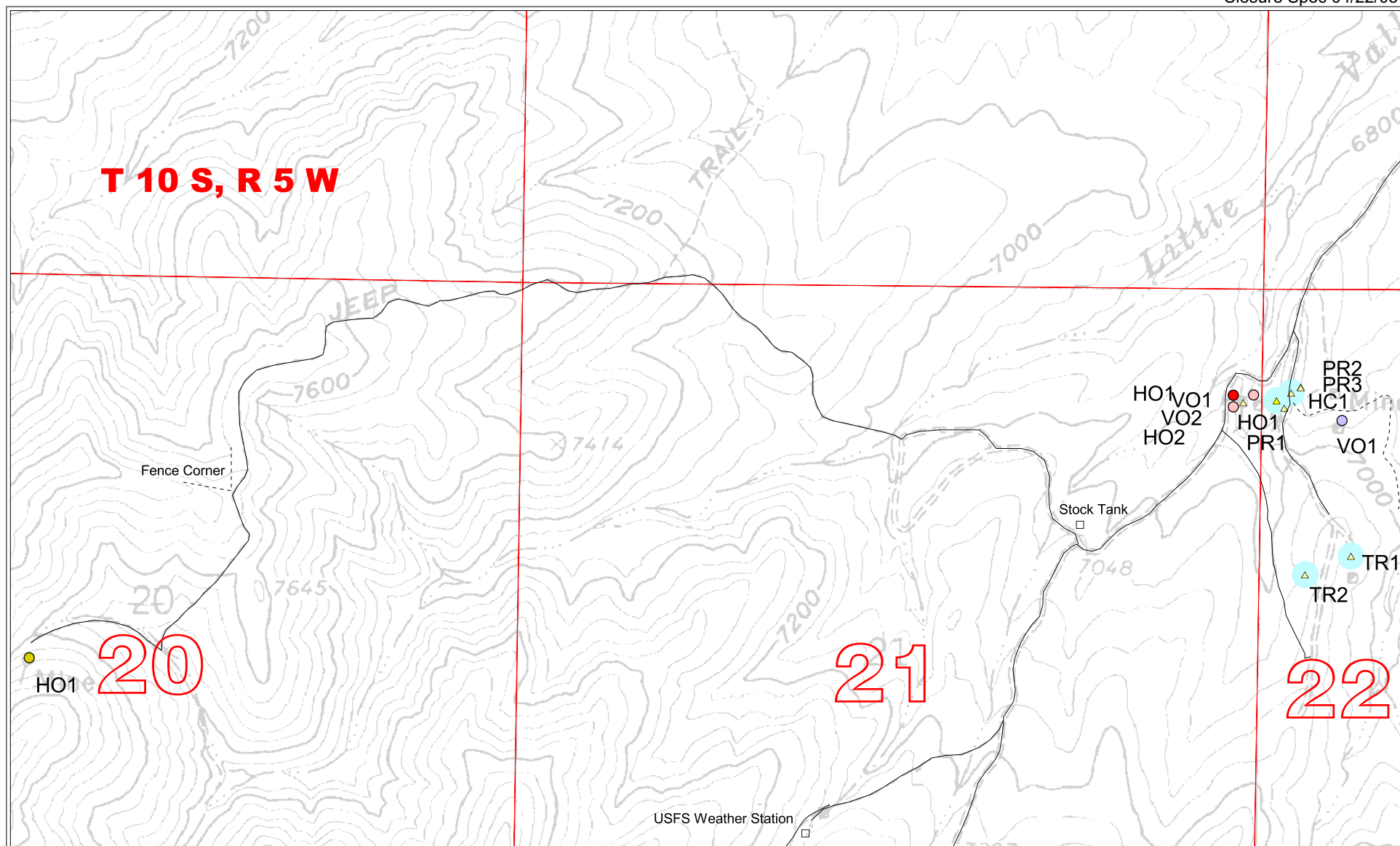
Vernon Sheeprocks Project

AMR/045/910

Detail Map D3 of D12
Refer to Subarea Map S3 of S6:
Bennion

Bennion

Detail Map



Roads		Specified Closure	
	Paved		BACKFILL (Hand)
	2WD		BACKFILL (Equip)
	4WD		BAT GATE
	ATV		REBAR GRATE
	Foot		WALL (Block/Stone)
	Cattle Guard		None/NA
	Gate		Earthwork
	Structure		

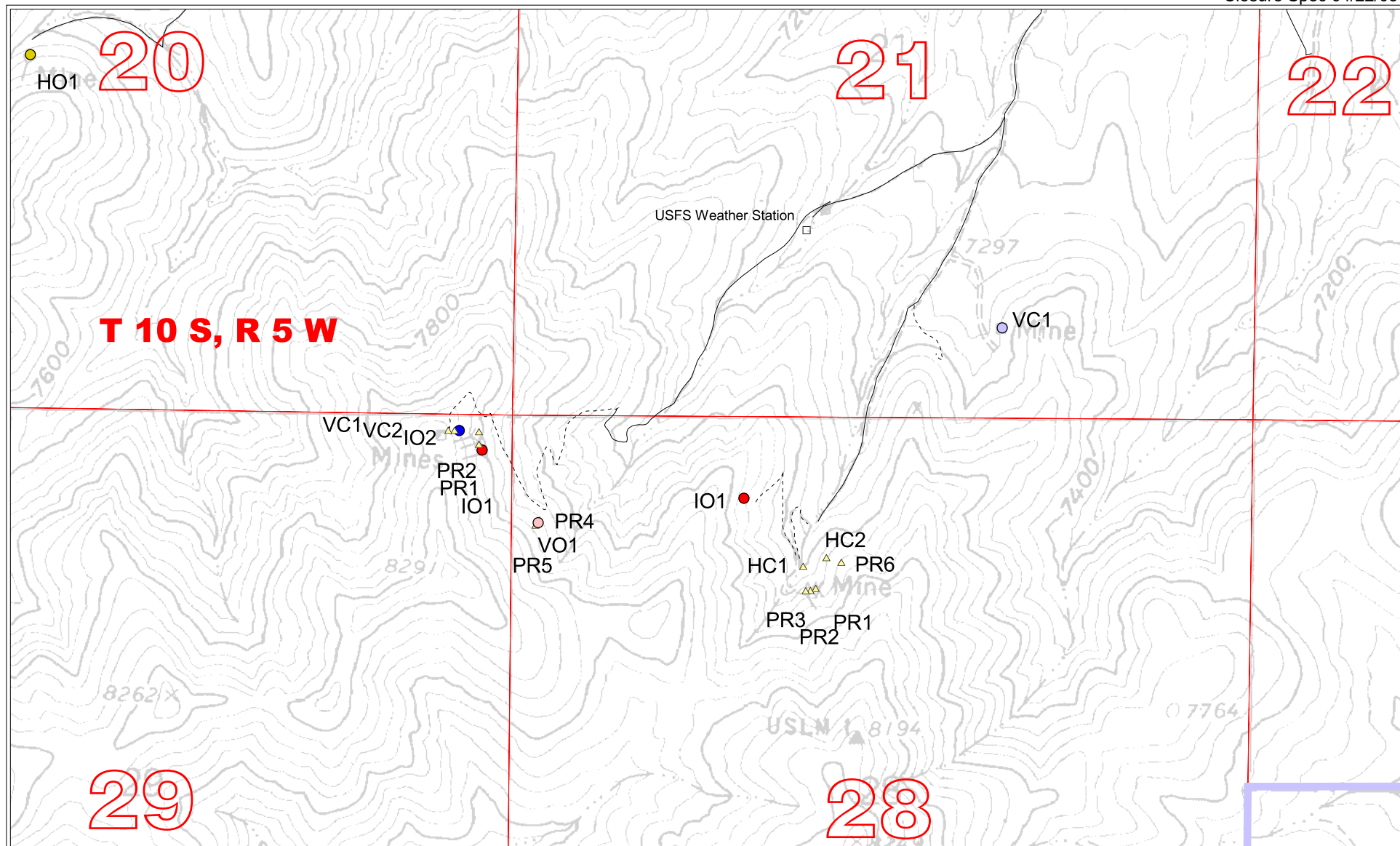
Drawn By: JCR/DOGM Plotted: April 22, 2005

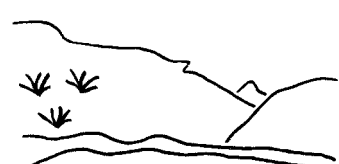


Vernon Sheeprocks Project AMR/045/910

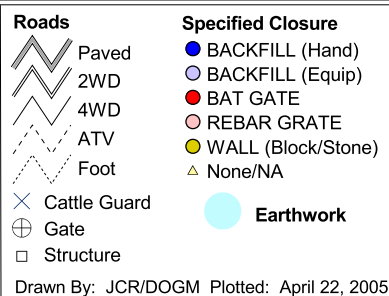
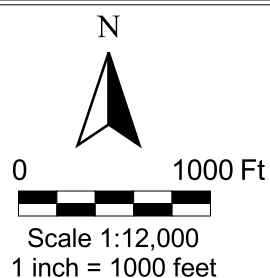
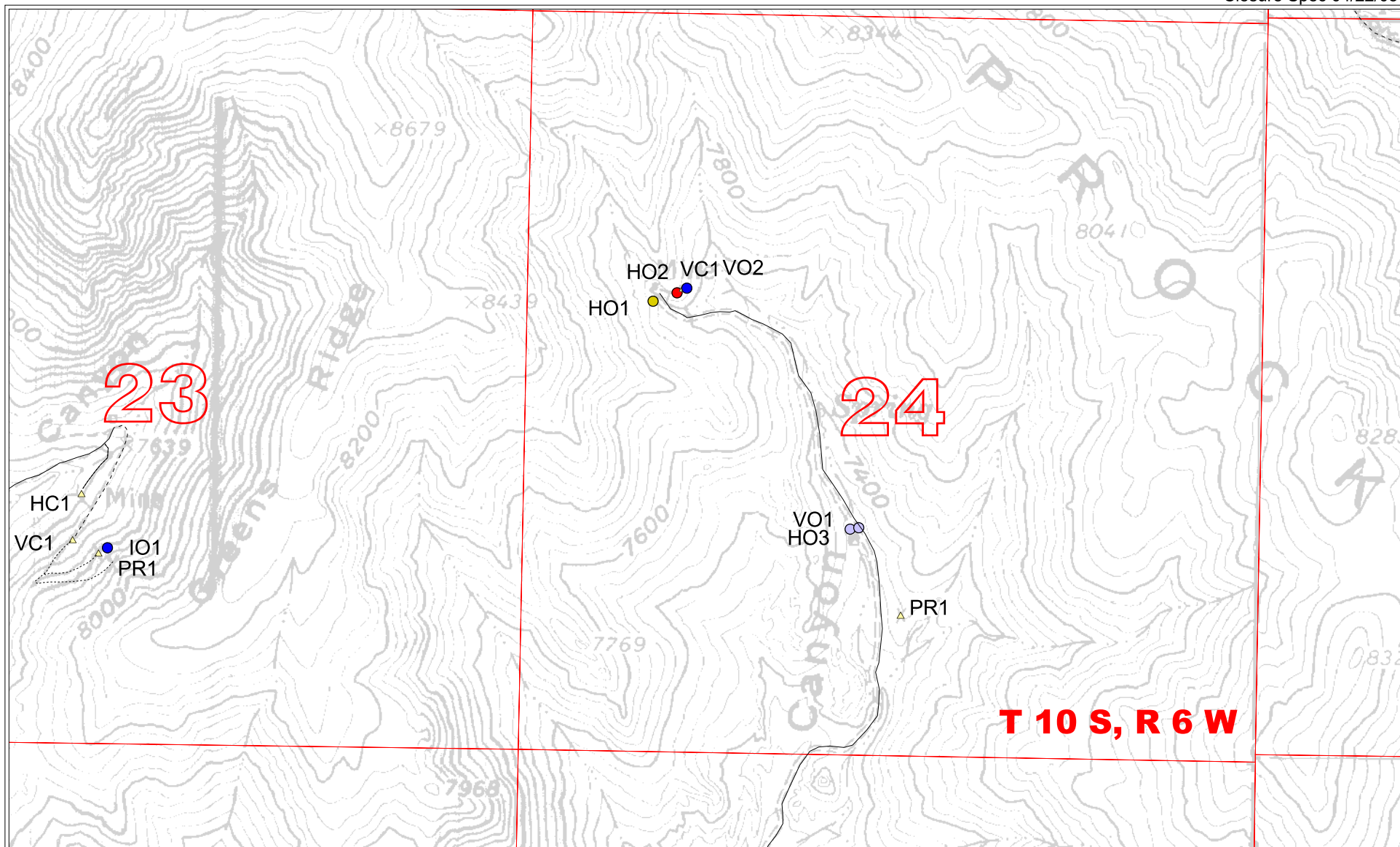
Little Valley North

Detail Map D4 of D12
Refer to Subarea Map S4 of S6:
Vernon Ck/Little Valley

Detail Map



 <p>Utah Oil Gas and Mining Abandoned Mine Reclamation Program</p>	<p>N</p>  <p>0 1000 Ft</p>  <p>Scale 1:12,000 1 inch = 1000 feet</p>	<p>Roads</p> <ul style="list-style-type: none"> Paved 2WD 4WD ATV Foot Cattle Guard Gate Structure <p>Specified Closure</p> <ul style="list-style-type: none"> BACKFILL (Hand) BACKFILL (Equip) BAT GATE REBAR GRATE WALL (Block/Stone) None/NA Earthwork <p>Drawn By: JCR/DOGM Plotted: April 22, 2005</p>	<h2>Vernon Sheeprocks Project</h2> <p>AMR/045/910</p> <h3>Little Valley South</h3> <p>Detail Map D5 of D12 Refer to Subarea Map S4 of S6: Vernon Ck/Little Valley</p> <p>Detail Map</p>
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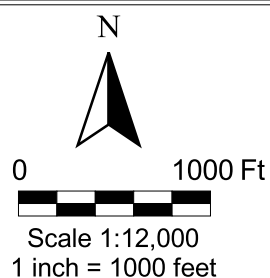
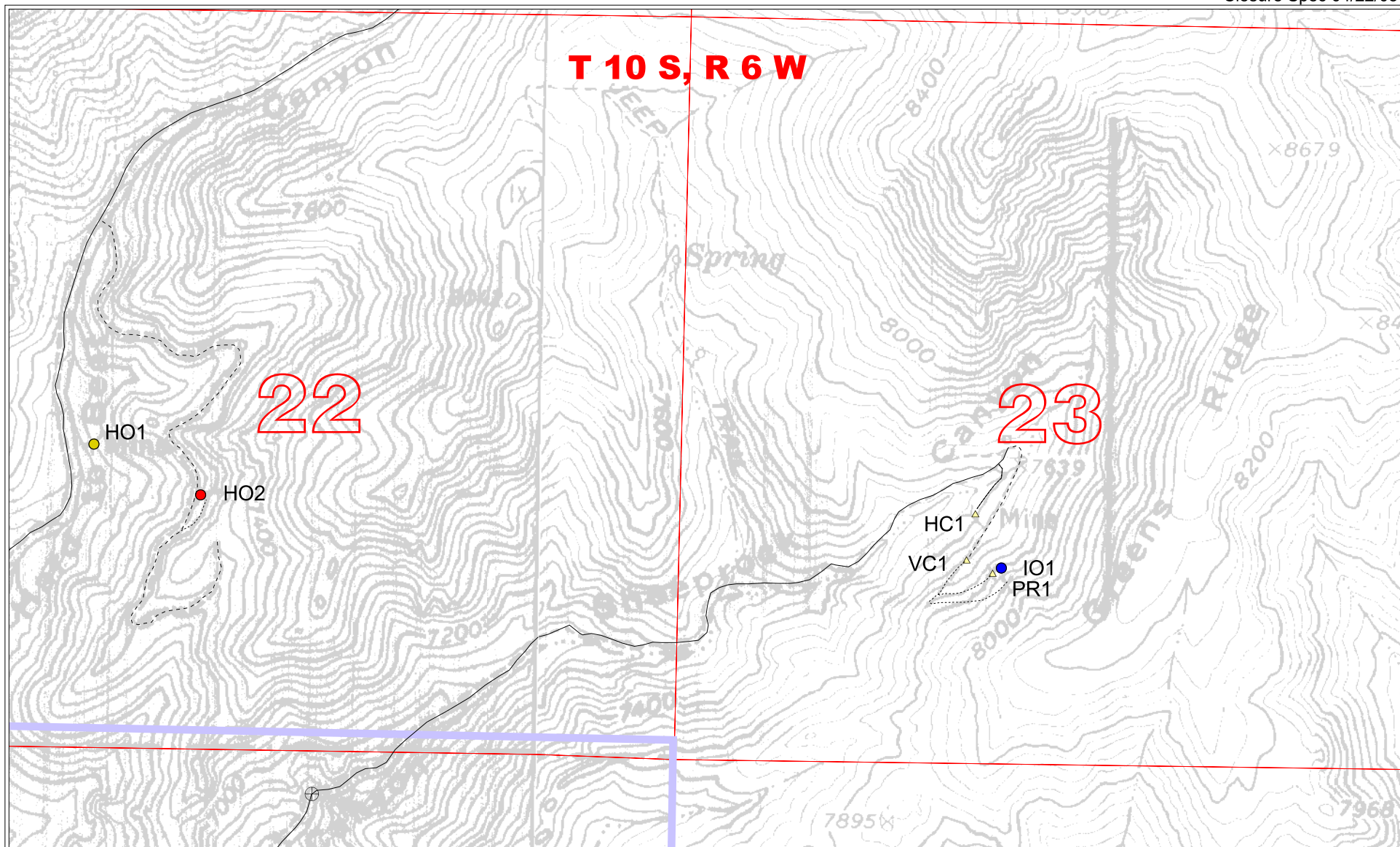


Vernon Sheeprocks Project AMR/045/910

Detail Map D6 of D12
Refer to Subarea Map S5 of S6:
Joes/Hard to Beat

Joes Canyon

Detail Map



Roads		Specified Closure	
	Paved		BACKFILL (Hand)
	2WD		BACKFILL (Equip)
	4WD		BAT GATE
	ATV		REBAR GRATE
	Foot		WALL (Block/Stone)
	Cattle Guard		None/NA
	Gate		Earthwork
	Structure		

Drawn By: JCR/DOGM Plotted: April 22, 2005

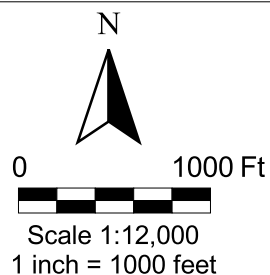
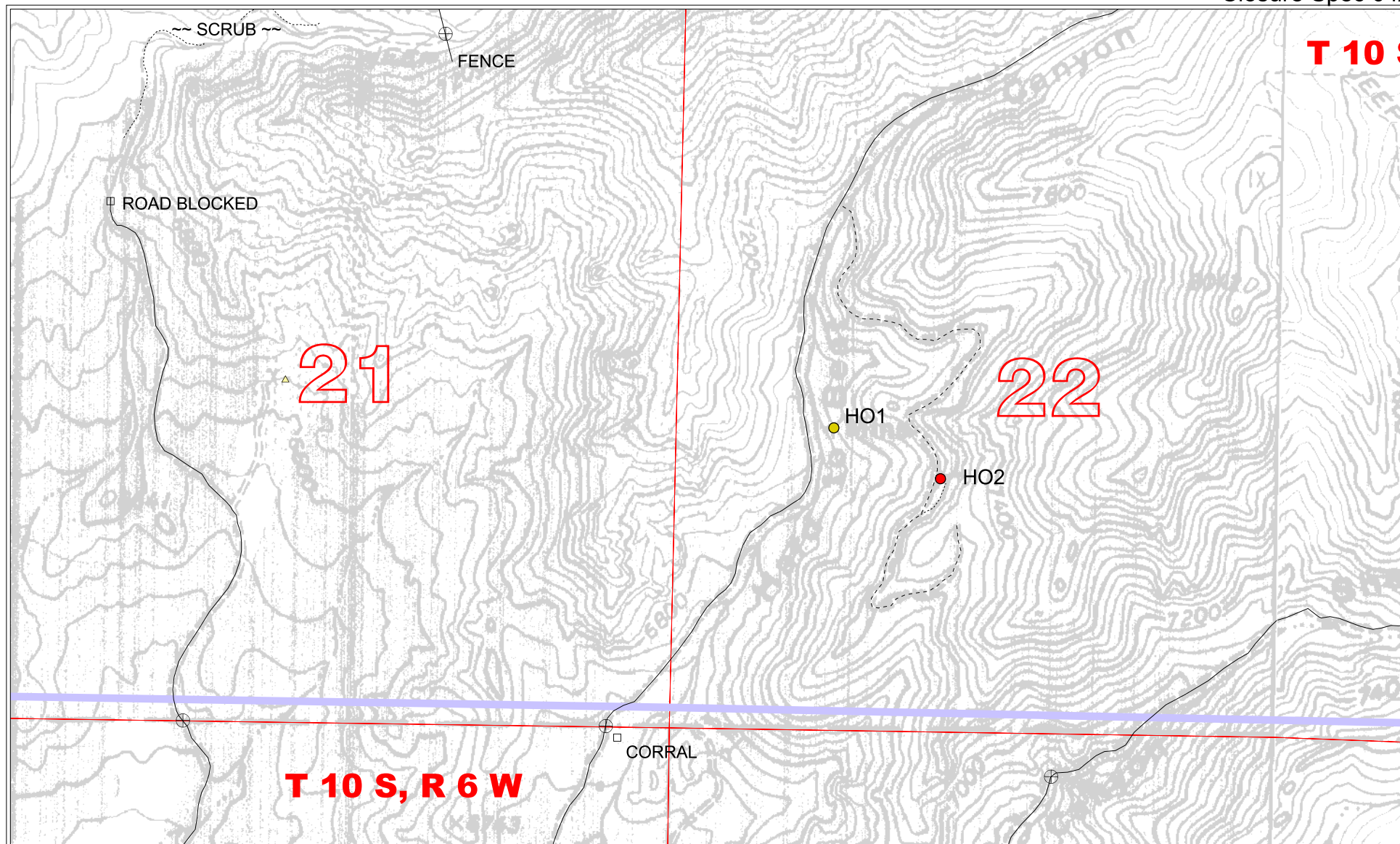
Vernon Sheeprocks Project

AMR/045/910

Detail Map D7 of D12
Refer to Subarea Map S5 of S6:
Jones/Hard to Beat

Sheeprock

Detail Map



Roads		Specified Closure	
	Paved		BACKFILL (Hand)
	2WD		BACKFILL (Equip)
	4WD		BAT GATE
	ATV		REBAR GRATE
	Foot		WALL (Block/Stone)
	Cattle Guard		None/NA
	Gate		Earthwork
	Structure		

Drawn By: JCR/DOGM Plotted: April 22, 2005

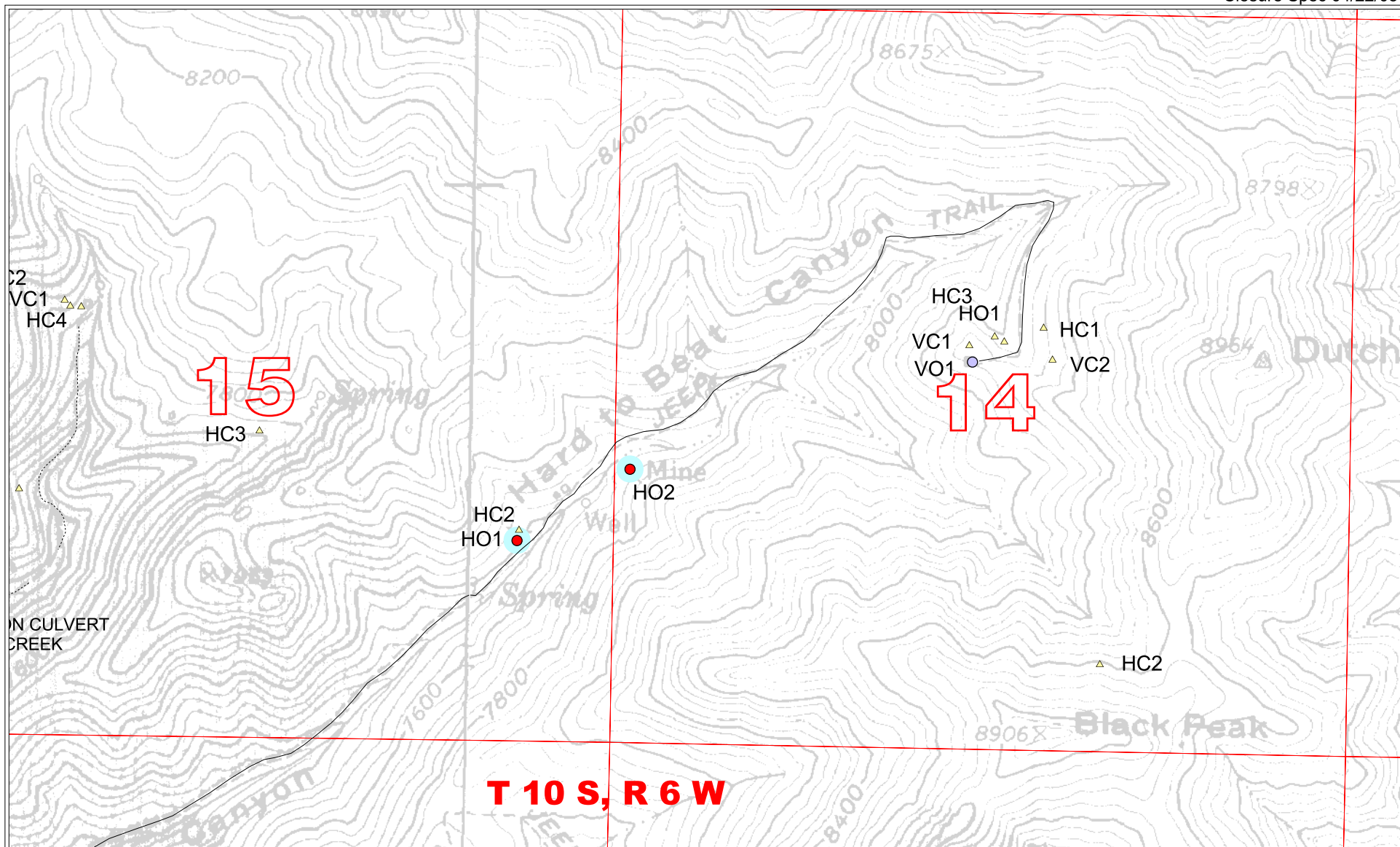
Vernon Sheeprocks Project

AMR/045/910

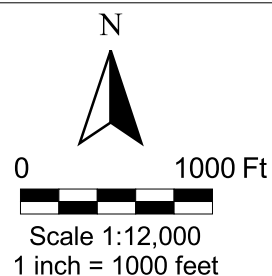
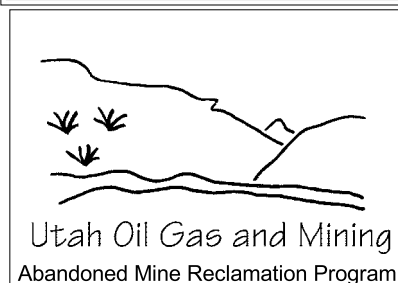
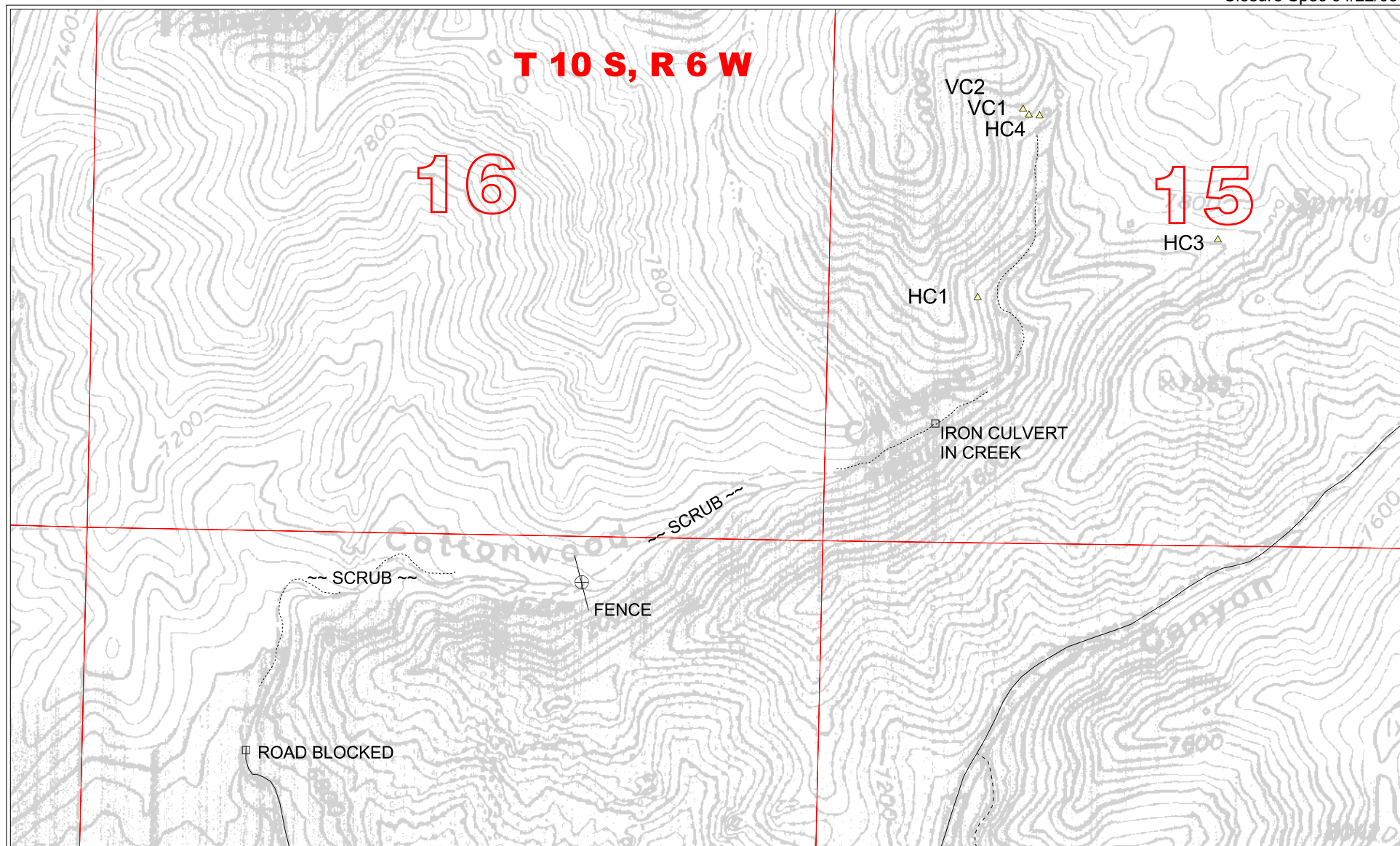
Hard to Beat South

Detail Map D8 of D12
Refer to Subarea Map S5 of S6:
Joes/Hard to Beat

Detail Map



<p>Utah Oil Gas and Mining Abandoned Mine Reclamation Program</p>	<p>N</p> <p>0 1000 Ft</p> <p>Scale 1:12,000 1 inch = 1000 feet</p>	<p>Roads</p> <ul style="list-style-type: none"> Paved 2WD 4WD ATV Foot Cattle Guard Gate Structure <p>Specified Closure</p> <ul style="list-style-type: none"> BACKFILL (Hand) BACKFILL (Equip) BAT GATE REBAR GRATE WALL (Block/Stone) None/NA Earthwork <p>Drawn By: JCR/DOGM Plotted: April 22, 2005</p>	<h2>Vernon Sheeprocks Project</h2> <p>AMR/045/910</p> <h3>Hard to Beat North</h3> <p>Detail Map D9 of D12 Refer to Subarea Map S5 of S6: Joes/Hard to Beat</p> <p>Detail Map</p>
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Roads		Specified Closure	
	Paved		BACKFILL (Hand)
	2WD		BACKFILL (Equip)
	4WD		BAT GATE
	ATV		REBAR GRATE
	Foot		WALL (Block/Stone)
	Cattle Guard		None/NA
	Gate		Earthwork
	Structure		

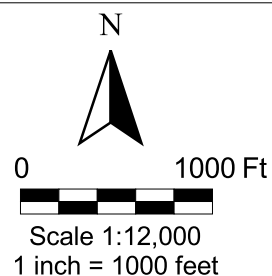
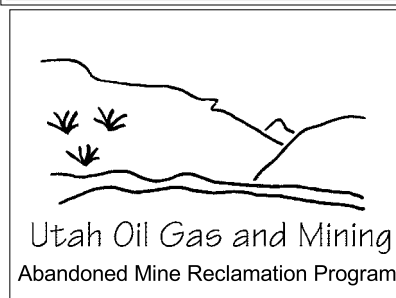
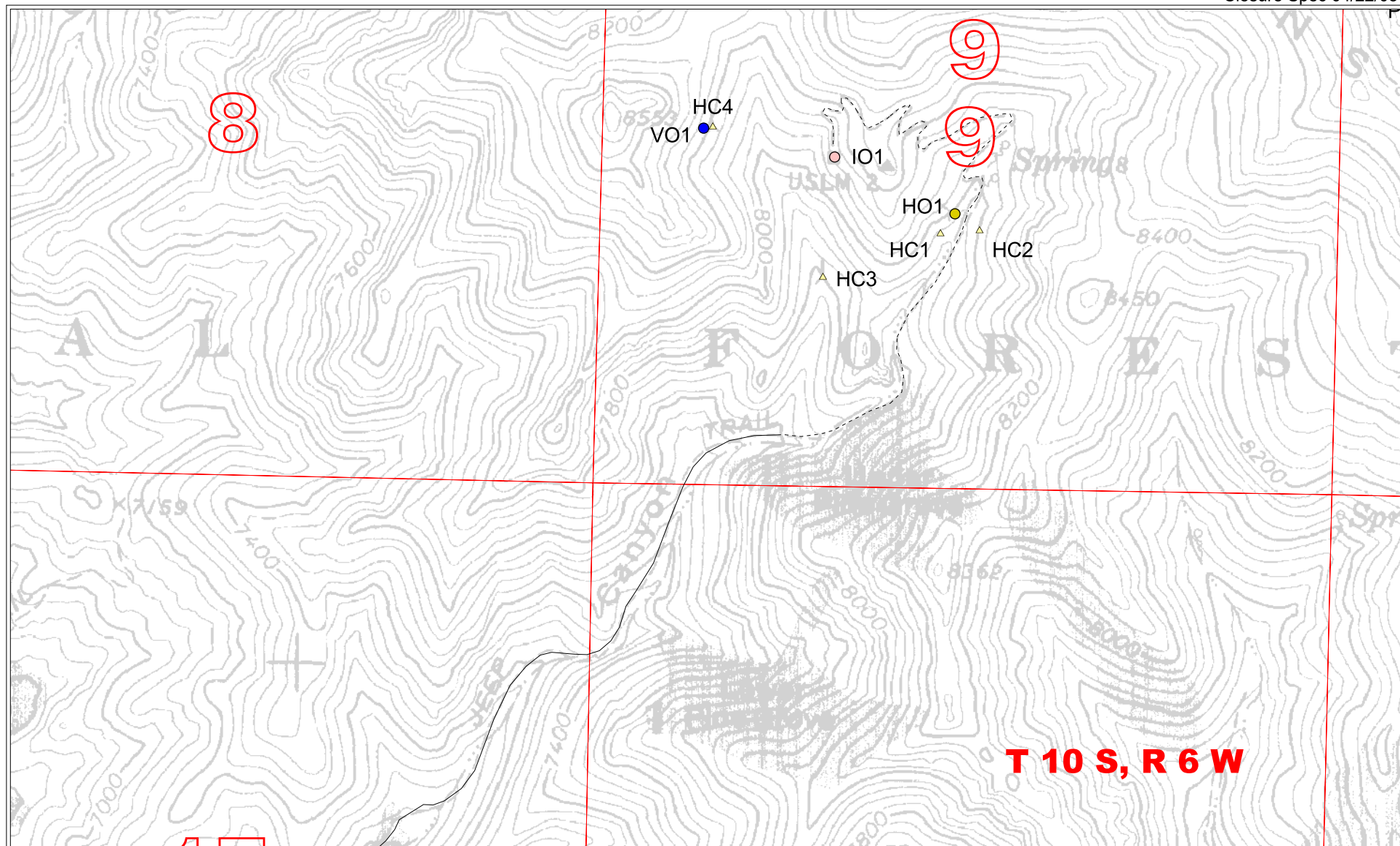
Drawn By: JCR/DOGM Plotted: April 22, 2005

Vernon Sheeprocks Project AMR/045/910

Detail Map D10 of D12
Refer to Subarea Map S5 of S6:
Joes/Hard to Beat

Cottonwood

Detail Map



Roads		Specified Closure	
	Paved		BACKFILL (Hand)
	2WD		BACKFILL (Equip)
	4WD		BAT GATE
	ATV		REBAR GRATE
	Foot		WALL (Block/Stone)
	Cattle Guard		None/NA
	Gate		Earthwork
	Structure		

Drawn By: JCR/DOGM Plotted: April 22, 2005

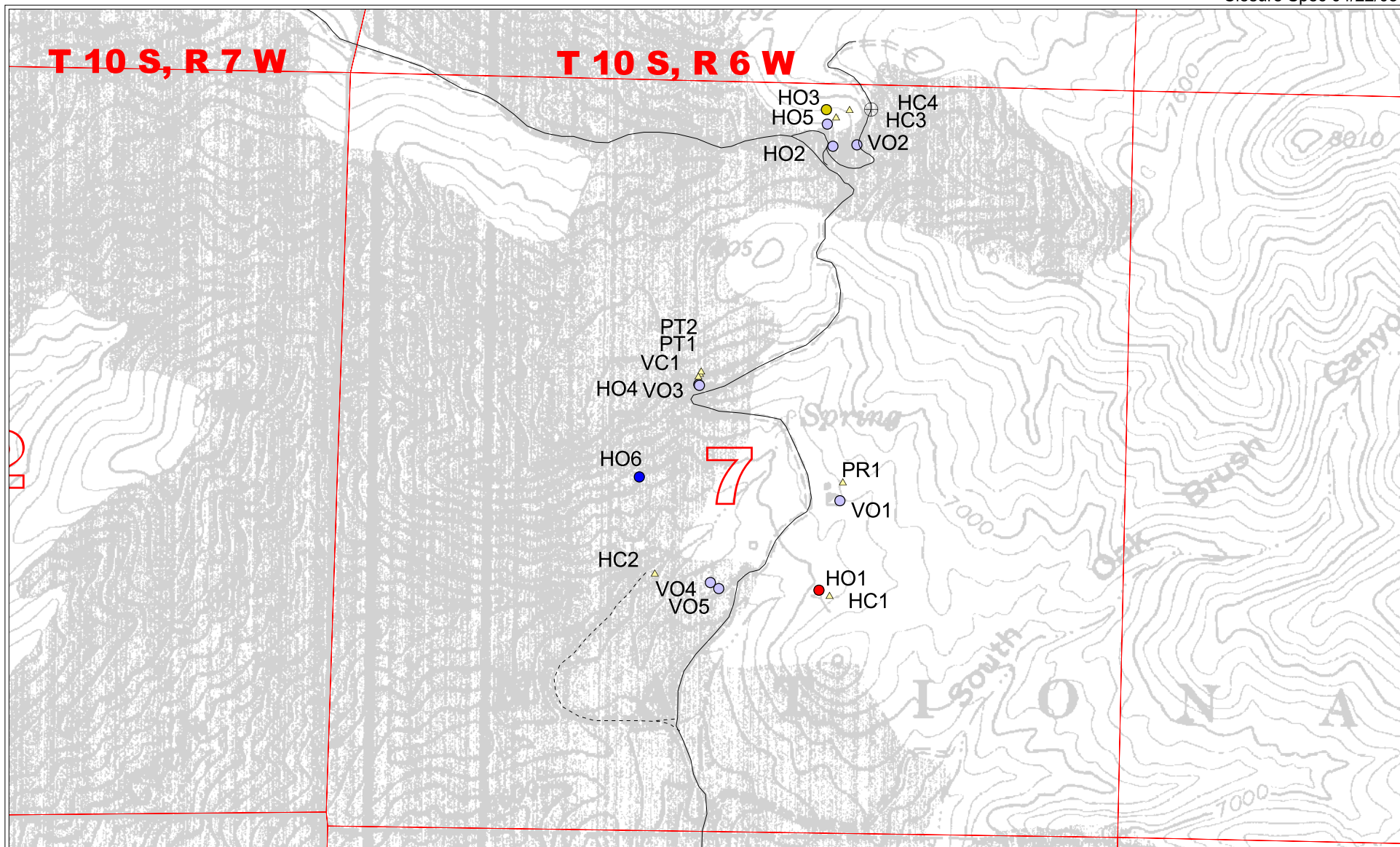
Vernon Sheeprocks Project

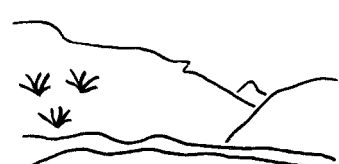


AMR/045/910

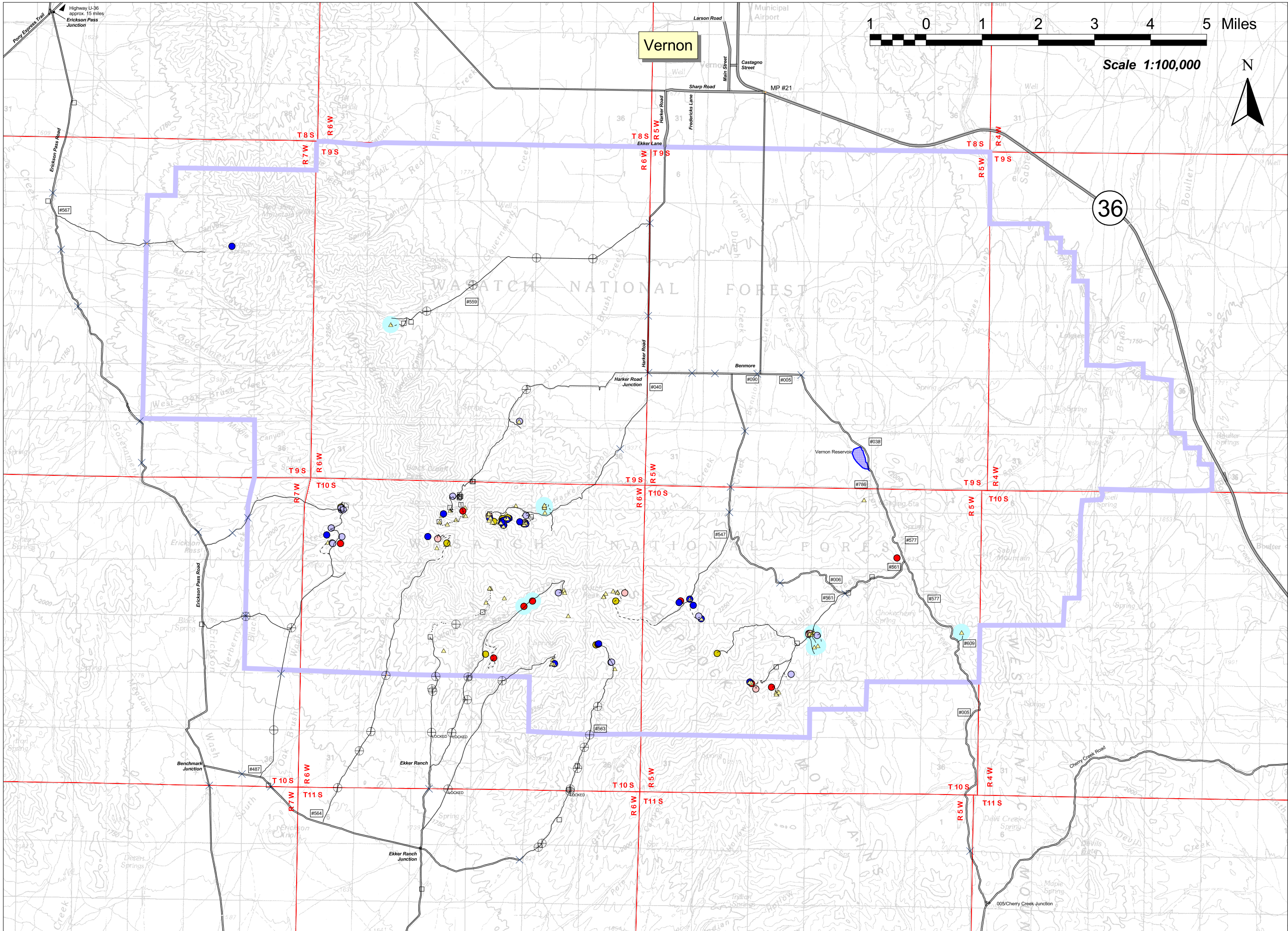
South Pine

Detail Map D11 of D12
Refer to Subarea Map S6 of S6:
So. Pine/So. Oak Brush

Detail Map



 <p>Utah Oil Gas and Mining Abandoned Mine Reclamation Program</p>	<p>N</p>  <p>0 1000 Ft</p>  <p>Scale 1:12,000 1 inch = 1000 feet</p>	<p>Roads</p> <ul style="list-style-type: none"> Paved 2WD 4WD ATV Foot Cattle Guard Gate Structure <p>Specified Closure</p> <ul style="list-style-type: none"> BACKFILL (Hand) BACKFILL (Equip) BAT GATE REBAR GRATE WALL (Block/Stone) None/NA Earthwork <p>Drawn By: JCR/DOGM Plotted: April 22, 2005</p>	<h1>Vernon Sheeprocks Project</h1> <p>AMR/045/910</p> <h2>South Oak Brush</h2> <p>Detail Map D12 of D12 Refer to Subarea Map S6 of S6: So. Pine/So. Oak Brush</p> <p>Detail Map</p>
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Vernon Sheeprocks Project Overview Map

Plate 1

- Specified Mine Closure**
- Backfill (Hand)
 - Backfill (Equipment)
 - Bat Gate
 - Rebar Gate
 - Wall (Stone/Block)
 - ▲ None/NA
 - Earthwork Site

- Misc. Point Features**
- × Cattle Guard
 - ⊕ Gate
 - Structure

- Primary Roads**
- ▬ Paved
 - ▬ 2WD
 - ▬ 4WD
 - ▬ ATV
 - ▬ Foot
 - ▭ Project Boundary

Base Topography:
Rush Valley & Lyndyl
100k USGS Quadrangles
Rev. 04/21/05

Vernon Sheeprocks Project

Pre-Bid Meeting
Tuesday, May 3
12:00 noon

Meet at the Vernon Reservoir.

Directions to the Vernon Reservoir:

Starting from the town of Vernon (Vernon is about 30 miles south of Tooele on Highway U-36), head south on Highway U-36 for about 0.8 miles to a gravel road turnoff. This turnoff is about 200 feet south of milepost #21. It is the junction of Sharp Road (east-west, "Welcome to Vernon" sign) and the Benmore road (north-south, "Benmore" sign)

Turn south on the road to Benmore for 5 miles to a T-intersection with a wood directional sign (<Vernon Creek/<Little Valley/Benmore Creek>/Harker Creek>) and a large kiosk sign.

Turn east (left) at the T-intersection, following the arrows for Vernon Creek and Little Valley.

After 0.7 miles there is a 4-way intersection with a ranch to the east. Follow the main road as it turns south.

The Vernon Reservoir is about 2 miles further past this turn.

===

The road to Vernon Reservoir is a maintained gravel/dirt road and is generally suitable for 2-wheel-drive vehicles, unless wet.

The pre-bid tour will include travel on 4-wheel-drive roads. High clearance 4-wheel-drive vehicles are recommended.